# Al Startups in Accounting

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#### **Summary**

We survey the startup space in Accounting, looking in detail at how companies were started, and how they use AI. Questions we ask are:

- What is the product, and the target market?
- What is the founding history of the company? Who are the founders?
- What interviews or podcasts are available with the founders?
- What pivots did the company make?
- Which trade shows does the company attend?
- What is the company tech stack?
- How does the company use AI?

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- A16Z: Death, Taxes, and AI: How Generative AI Will Change Accounting
  - o Mark Andrusko's LinkedIn post, tweet
- A16Z: Fintech Scales Vertica SAAS (2020)
- Turpentine Finance: Why AI will be in every CFO's toolkit, interview with Seema Amble

# Segments

# Tax Filing

- April
- Column Tax
- Muse
- taxgpt

### Research/Co-Pilot

- Basis
- Materia
- Tutti

### **Process Automation**

- Additive
- Black Ore
- Brex
- Campfire
- Clockwork
- <u>Datasnipper</u>
- Docyt
- gaapRT
- Glean
- InScope
- Klarity
- Numeric
- Ramp
- TruePrep.ai
- <u>Trullion</u>
- Vic.ai

# Bookkeeping

- Booke.ai
- Entendre Finance
- Every
- Fondo
- Genesys
- Kick
- Pilot
- Puzzle
- Reconcile
- Rillet
- Truewind

# **Practice Management**

• Aiwyn

- Canopy
- Fieldguide
- Karbon
- Laurel

### **Audit**

- Agentive
- Auditsight
- Uplink

### **Specialty Tax**

- Anrok
- Neo.Tax
- SPRX
- Abound

### **Embedded Accounting**

- Ember
- Functional Finance
- Layer
- Teal

# **Additive**

- <u>Perplexity about Additive</u> is all wrong!
- https://www.linkedin.com/company/additiveai/

## **Company Overview**

Additive builds tools that help tax professionals with their most repetitive tasks, so that they can focus on creating value for their clients.

# Founders and Background

- Dwight Crow, ex whisper.ai
- https://www.linkedin.com/in/ataylor0123/
- https://www.linkedin.com/in/venkyniver/

# **Black Ore**

#### References

- Perplexity Search
- https://www.cpapracticeadvisor.com/2024/02/23/how-tax-automation-and-advisory-solutions-can-transform-a-firm/101976/
- https://www.youtube.com/watch?v=f ec3StCbOI
- https://www.blackore.ai/careers
- Fundbox Interview with CEO Eyal Shinar and Karen Webster
- Israeli Product American Product Fit- Driving Israeli Innovation into the US
  - Eyal started prev company in Israel, US market
  - Year ago moved to US
  - Kept most R&D in Israel
  - Year ago, started new company
  - Moved to Austin from San Francisco California refugee
  - o Prev company Fundbox B2B billing. Company can be paid earlier for invoices.
  - o A lot of flying of business people and engineers from Tel Aviv to San Francisco
  - Blue collar workers that make 300,000/year

### **Automation Processes**

- Accelerating tax preparation. All is a powerful tool for automating data entry. Advanced tax preparation automation will transform preparers into reviewers and free up staff to focus on client service.
- Analyzing large datasets to identify trends. Al sifts data quickly, from scanning the latest tax regulations to reviewing a client's financial records. It will help identify savings opportunities and enable real-time tax forecasting to better serve clients who request tax planning support.
- Streamline client communication. Al-powered virtual assistants can field inquiries and organize requests, automating low-value client tasks.
- Preliminary research and recommendations. All excels at research, presenting droves of relevant information faster than a human could. This will allow tax prost o get smart on complex issues and improve the speed and accuracy of their strategic decisions.

## **Black Ore Founders and Background**

Black Ore was founded in 2022 by veteran entrepreneurs <u>Eyal Shinar</u> and <u>Pavel Kapovski</u>. Shinar, the CEO, previously co-founded Fundbox, a fintech unicorn powering payments and lending solutions for SMBs. Kapovski, the CTO, led R&D at CME Group and spearheaded the

development of machine learning technology used by globally regulated banks and financial institutions.

Eyal Shinar was previously Executive Chairman, Co-Founder at Fundbox (July 2020 - October 2021); Co-Founder, Chief Executive Officer at Fundbox (January 2013 - August 2020); Vice President at Battery Ventures (June 2010 - March 2013); Senior Associate at Battery Ventures (January 2009 - June 2010).

## **Company History and Pivots**

Black Ore emerged from stealth in November 2023 with \$60 million in funding led by a16z and Oak HC/FT. The company initially focused on building an AI automation platform to accelerate core workflows for financial services businesses and simplify the experience for their clients. In November 2023, Black Ore launched its flagship product, **Tax Autopilot**, which combines proprietary AI technology with federal and state tax codes and regulations to automate the tax preparation and review process for Certified Public Accountants (CPAs) and accounting firms. Future product offerings will target wealth management, financial advisory and planning, insurance services, and more.

### Eyal Shinar on Bloomberg Tech about Black Ore

"The main reason why we were in stealth for so long - We spent two years building the architecture, building the pipes, fetching the data from within the different documents. It could be handwritten, that could be a PDF, that could be JPEG, and we put it in the right place in the tax software without requiring the CPA to change any fully completed tax return, ready for the CPA to review, as well as the work product that associate without like a tie out binder and so on. It does take more than is to build that a lot of internal understanding of the working with many different CPA firms and tax preparation firm to make sure that we understand the workflow end to end. Even before it was called to use the what were the I, we are committing very big pieces of that."

## **Use of Language Models and Al**

Black Ore's AI platform leverages advanced language models and machine learning to revolutionize the financial services industry. The company's proprietary AI technology is designed to alleviate resource constraints, scale services, and create more value for clients by automating tedious administrative tasks and legacy technologies. **Tax Autopilot**, Black Ore's first product, uses AI to study tax law and simplify the tax preparation and review process for accountants. The platform aims to free up financial services professionals to focus on strategic human thinking and add more value to clients, accelerating revenue growth and expanding profitability.

### **Funding and Investors**

Black Ore has raised a total of \$60.03 million in funding, with its latest round led by a16z and Oak HC/FT. Other notable investors include General Catalyst, Founders Fund, Khosla Ventures, Trust Ventures, LionBird, SciFiVC, and SV Angel. The company plans to use the fresh funds to onboard new customers, grow its team, and accelerate the development of additional Al products across financial services.

Black Ore's tech stack, as indicated on their careers page, includes a range of modern technologies that support their Al-driven initiatives. Here are the key components:

### **Presumed Tech Stack**

- **Programming Languages**: Python, especially for AI and machine learning applications. JavaScript for front-end development.
- Frameworks and Libraries:
  - o **TensorFlow** and **PyTorch** for building and deploying machine learning models.
  - Flask for developing web applications and APIs.
- Databases:
  - PostgreSQL for relational database management, ensuring robust data handling capabilities.
  - **Redis**, likely used for caching and improving application performance.
- Cloud Services:
  - Black Ore leverages cloud platforms such as AWS (Amazon Web Services) for scalable infrastructure and services.
- DevOps Tools:
  - Tools like **Docker** and **Kubernetes** are used for containerization and orchestration, facilitating efficient deployment and management of applications.

### Use of Al

Black Ore employs AI primarily through its flagship product, **Tax Autopilot**, which automates tax preparation processes. The company uses advanced language models to interpret complex tax regulations and streamline workflows for accountants. This allows financial professionals to focus on strategic tasks rather than manual data entry or compliance checks. By integrating AI into their operations, Black Ore aims to enhance productivity, improve accuracy in tax-related tasks, and ultimately deliver more value to their clients in the financial services sector.

### Job description for Al

- Willingness to work hard and drive objectives to completion autonomously
- Experience working with LLM, such as GPT-3+, LLAMA, or similar.

- Understanding Transformer Architecture
- Experience with LLM tuning, from prompt engineering, instruction tuning, RLHF, parameter-efficient tuning.
- Proficiency in programming languages such as Python
- Experience with embeddings, and tools like langchain, pinecone etc.
- Experience with the modern ML stack (e.g., TF2, Jax, TPUs).
- Experience scraping and incorporate data at scale from public and private sources
- Passion for creative problem solving

# Campfire

<a href="https://meetcampfire.com/">https://meetcampfire.com/</a>

### Description

- Competes with Quickbooks and Netsuite
- Campfire is the modern accounting platform for startups and mid-size tech companies.
   Our product includes an accounting general ledger that has multi-entity support and advanced financial reporting such as P&L by department and contribution margin by customer.
- <a href="https://meetcampfire.com/blog/were-coming-out-of-stealth-with-usd3-5m-in-funding-and-announcing-our-modern/">https://meetcampfire.com/blog/were-coming-out-of-stealth-with-usd3-5m-in-funding-and-announcing-our-modern/</a>
- As an exec at Invoice2go (90 employees, Series C), one of the largest pain points that I encountered was that our company had outgrown QuickBooks and our accounting team was consolidating the financials for multiple entities in spreadsheets, but the migration to an ERP was on hold for obvious reasons even after the expensive, six month migration, we would still be exporting data to perform the real work in spreadsheets. After selling the company to Bill.com and leading partnerships there, I noticed significant innovation happening around core accounting (Brex, Zip, Rippling, etc), but core accounting software like NetSuite hadn't been touched in 20+ years.
- At the same time, my Co-founder / CTO, Fernando San Martin, led back-end engineering at Trovata, the treasury accounting platform used by customers like Square and Etsy. He saw an opportunity to bring enterprise-grade automation to mid-size companies and solve the challenge of large accounting data sets with the growth of FinTech, AI and other high-volume business models.

# **Clockwork**

Clockwork helps small businesses and their outsourced finance partners take control of their finances by spotting both problems and opportunities sooner with tools and analyses previously only available to growth stage enterprises.

Built by a former outsourced CFO, Clockwork is an incredibly easy-to-use and accurate Al-powered financial planning and analysis platform. Clockwork's technology enables often overlooked companies to save 20+ hours a month on managing, planning, and predicting their finances and cash flow. With integrations into QuickBooks Online and Xero, the platform automatically builds unique 5-year projections, 52-week cash flow forecasts, dashboards, and can build unlimited custom assumptions and scenarios in seconds, not days or weeks

#### References

- Perplexity query
- UnderscoreVC: Why We Invested in Clockwork: Al-powered Financial Planning for SMBs
- Clockwork.ai: 3 ways firms can leverage AI, references accountingtoday.com's 6 ways to use AI in your firm
- Podcasts with Founder and CEO Fady Hawatmeh
  - Insightful Accountant: <u>Fady Hawatmeh | Leveraging Ai to Grow an Advisory Practice</u>, <u>Ep. 61</u> (2024)
  - The Real Slim Fady Show (2024)
    - Episode 1: Finance is the last role companies hire: why that's dangerous & smart. | Clockwork Al
    - Episode 2: Bootstrapping vs Using VC Money | Clockwork Al
    - Episode 3: The difference between a CEO and a CFO mindset |
       Clockwork AI
    - Episode 4: Raising money in the midwest vs raising money on the coasts
    - Episode 5: Smart money vs dumb money, why you need both
    - Episode 6: Most CFOs suck, and this is why
    - Episode 7: Trends in accounting. Difference in market services between bookkeeper, accountant, CFO. Hire slower, fire faster. A conversation with serial entrepreneur, Michael Ly

## Founders and Background

<u>Fady Hawatmeh</u>, the founder and CEO of Clockwork, has a rich background in finance and entrepreneurship. He grew up in a family that owned restaurants, which instilled in him a deep understanding of small business operations. Fady's career began early; he started his first company at age 12 and later managed his family's restaurant while pursuing his education. He holds degrees in Finance and Accounting, a Six Sigma Black Belt, and a certificate in Strategic Decision and Risk Management from Stanford University. Before founding Clockwork, he operated an outsourced CFO consulting firm that serviced over 50 companies, giving him firsthand insight into the financial challenges faced by SMBs.

#### **Investors**

 UnderscoreVC: Why We Invested in Clockwork: Al-powered Financial Planning for SMBs

### **Fady's Podcasts and Interviews**

Fady grew up in an entrepreneur family. His family ran restaurants. His parents told him he would not manage the family business when he grew up... And that he should go and get the real college degree. Which Fady did - and he got a degree in Accounting.

As a kid Fady did all sorts of small jobs. He figured out ways to make small hustles and make money. For example, both he and his brother were asked to cut the lawn for \$10. Fady renegotiated his contract and asked his father for \$20, if he also trimmed hedged and blew leaves. Which Fady's father was happy to oblige.

Fady started his first company, effectively, when he was 12 years old -he was fixing speeding tickets for rich kids he went to school with.

Not many people realize when in childhood their families help them acquire a career skill, says Fady. When he made money working, his family additionally deposited the same amount into a joint bank account that Fady's mother created for him, to encourage him to make money.

He was always fortunate enough as a kid to have money, and to be good with money - to be scrappy and save money. It taught him how to really run a bootstrap company - it gave him all the skills for that.

### Bootstrapping - pros and cons

Every decision you make as a bootstrap company is a potential life and death decision. You have to be very strategic with the bet you're making, with your money in the bank - because you can't really make many bets. You have to focus on bets that could potentially bring you that big contract, or that key hire needed early on.

Bootstrapping changes how you look at things, and makes you more calculated.

Another good thing about being bootstrapped is that you have no one you need to answer to-beside to yourself ,or maybe to a couple of co-founders. There is no board, there are no investors - and you don't have to commit to numbers. If you make a mistake, it's on you you have to live with it.

But that can work against you also. If you don't have anybody to hold you to account for your decisions, then you can make some pretty big mistakes.

Being bootstrapped, you however have the ultimate flexibility in what you want to build, and the way you're going to build it. Your founder vision isn't tainted when you bootstrapped. You can really build what you set out to build when you started your company.

You get to keep control and ownership of all the company if not the majority of the company.

### The Lonely Entrepreneur

Being an entrepreneur is the most lonely path you can ever take in your career. Being bootstrapped is even more lonely.

No one heard from Fady for the 3 years he was alone in his condo, working all the time he had on Clockwork, with no other friends. Fady had no money for friends... He was pouring all the money into Clockwork. He had no social life - that's how committed he was in building his company.

And when you don't have any investors checking in you - you are literally on an island. You don't have anything else.

### Being held accountable

Having someone to hold you accountable is a good thing - when you say that you're going to release a version of your product, or make a sale, or move to a new market.

Accountability is really helpful and necessary for everyone, especially for entrepreneurs.

When you eventually get investments, if you bootstrapped for too long, then you won't have the habits to know what to give investors, and how to update investors. Or how to ask for help. That is extremely difficult for a lot of bootstrap entrepreneurs.

## Making decisions from a position of power

When you bootstrap, you make every decision out of a position of desperation, rather than power.

It is extremely important to make decisions from a position of power - for example, to get the talent that you need, or the consultants, or the marketing that is necessary to move the business forward.

It is difficult to get credibility in the market if you're not VC backed.

TechCrunch, Pitchbook, Forbes - people look these resources up, and if you have a credible VC, the market will see that the VC trusted you with their money.

That gives you a huge amount of credibility. If however you're bootstrapped, you're going to have a hard time proving that you're going to be around next month, and next year.

Prospects will wake you out. I had many discussions with prospects who would say I had already seen companies in your space just disappear - so I'll just wait.

Customers will say - if investors don't give you money, then why should I pay you?

There's still a lot of companies that are bootstrapped, successful, and have a great team, and a great product. But you need that stamp credibility. That is especially true if you're in a space that is very hot and very active. If you don't have the money, customers will say well, ...maybe you're not that good, if you don't have the resources.

This is a big disadvantage to being bootstrapped - it is difficult to get the stamp in the market, to go after customers that you want to go after.

### Smart money vs dumb money

Smart money is the money that is going to help you grow, hire people and build more products. Dumb money is just cash that you're given with no help to build the company.

Both are super important - the smart and the dumb money.

Since Fady has been around many startups as fractional CFO, he has seen examples when too many of the investors were 'smart money' - which caused a lot of problems. These investors could end up arguing all the time, and not admitting that the other investor is right. This ends up hurting the company they invested in.

### Fady's work at Boeing, and his CFO consulting

Fady worked, out of college, at Boeing for a while. Afterwards, he started his CFO consulting firm, where he eventually had eight employees as fractional CFOs. He did that for 5 years.

The CFO consulting firm was founded because his startup friends needed help with their finances. It was always like, "hey you did this at Boeing, you did this at another company can you help me with my finances, with my cash flow?". So Fady stopped giving them advice, and they were happy to pay him, because Fady knew what he was doing - and he was providing them value pretty much from the beginning.

### Poor quality of CFO consulting is systemic

At first Fady thought this was a great way to make a good living. You can make a good living being a consultant, an outsourced CFO, an outsource whatever you want.

But when Fady saw how systemically bad the situation was in finance, it was a really sad realization. He saw so many CFOs out there acting like they knew what they were doing, but they were doing an absolutely bad job. They did not provide any value for their clients.

When you're an outsourced CFO, accountant, or bookkeeper, your revenue over a month depends on your number of client fees. You can have 5-6-7-10 clients.

So if an outsourced CFO loses a client, they may not care. There is no shortage of clients. But there is a shortage of consultants that know what they're doing.

For outsourced CFOs the risk of losing a client is small. For companies, the risk of doing finances wrong is big.

### Accounting software tools

Running the CFO consulting firm, Fadynoticed that there weren't enough good tools available for the kind of work kind of analysis that his company needed to do. Fady ended up spending time with enough spreadsheets, that ultimately he built the product to solve the problem. That's how Clockwork was started.

Fady was consulting CFO at tech companies, and this gave him exposure to technology from the beginning. When Clockwork was started, it was intended from the getgo to be an Al company.

Fady was met with skepticism, initially - being told that AI could not be used for financial analysis. But he set out to prove everybody wrong.

#### Midwest VCs, versus bicoastal VCs

It was particularly difficult to raise VC funds in the Midwest, near Chicago.

VCs did not understand the plan, and suggested wholesale different alternatives. One of the VCs, in particular, pulled at the last moment, and dragged down a customer deal and angel investor along when they pulled out. Fady ended up pitching on the West Coast and the East Coast, meeting VCs who were more receptive. He ended up raising 2 million dollars in February 2022 from Boston-based Underscore VC, which was very supportive.

### The Clockwork product

Even though Fady says he's not technical, and just knows enough about technology to be dangerous - he was able to find the right people to build the product he wanted to build.

Clockwork AI is for firms that seek advisory services. It was built in the FP&A space for professionals, by professionals

Customers of Clockwork are accounting firms. Clockwork allows them to provide 30% more services, and to save eight hours a month.

Clockwork has the playbook for advisory services with Al

The platform provides, pretty much, what an experienced CFO would provide - not just a financial model, or cash flow forecast.

What was missing in the market was an FP&A solution as a whole. Clockwork looks at the company's financial records, and projects/predicts the company's finances and cash flow as a whole.

Clockwork is very easy to onboard. It takes 30 seconds to onboard Clockwork, compared to other software solutions that can take 30 days.

Clockwork's free tier is available to all non-advisory clients. This is an upseller vehicle.

#### Al outside PN&A

What does Fady see AI being used in accounting outside of PN&A?

Fady says he sees it very widely used in transaction type activities - for example, in bookkeeping, and in updating actuals.

### How Clockwork is implemented

Clockwork is available in QuickBooks and in Xero as a plugin, but the data resides in clockwork for security reasons.

Clockwork also integrates to the major payroll providers like gas stove paychecks ADP Palo CT pay for there's about 38 payroll integrations. We feel we pulling all the employee data for companies to do headcount planning and all that clockwork is then the single source of Truth for this data

Clockwork uses machine learning, as opposed to large language models. It learns from user input, and from closed data sets it gets from QuickBooks online, QuickBooks desktop edition and Xero. The models are trained based on specific datasets in these ERPs and user input.

### What is the biggest obstacle to adoption?

It is fear. Bookkeepers are afraid to recommend new software to their customers, because the customer may not like the new software, and may drop them.

The reality is that you are able to add value to customers, and for every customer you lose, get other customers - because actually customers want to be cutting edge.

The adoption vehicle for Clockwork is the bookkeepers, and not the CPAs.

Trade shows Fady attends are Scaling New Heights, Zero Con, QuickBooks Connect - and a couple others sprinkled in between.

#### Other AI tools used

For marketing Fady uses <u>jasper.ai</u>. He says it's super easy to use, and it's also a Boston-based company, like Clockwork. There's a couple other softwares, like Salesloft and Hubspot, that have great AI functionality.

### **Case Studies**

- <a href="https://www.clockwork.ai/case-studies/customer-spotlight-helping-prodjekt-pursue-more-opportunities">https://www.clockwork.ai/case-studies/customer-spotlight-helping-prodjekt-pursue-more-opportunities</a>
  - "With a simple Google search for "model cash flow," John found Clockwork. He immediately saw Clockwork breaking numbers down the way he needed to see

them in order to understand his financial situation. Within minutes John realized he "can do what I need to do to get a grasp on my finances + ask the right questions of my financial people."

- <a href="https://www.clockwork.ai/case-studies/success-story-how-cloudcpa-transformed-their-practice-with-the-right-tech-stack">https://www.clockwork.ai/case-studies/success-story-how-cloudcpa-transformed-their-practice-with-the-right-tech-stack</a>
  - "Their big breakthrough came with the adoption of Clockwork AI and Gusto, complemented by Xero, forming the ultimate tech stack for CloudCPA. Clockwork introduced a new realm of possibilities in FP&A, enabling CloudCPA to expand its advisory services and save time with more accurate forecasting, scenario planning, and custom metrics.
  - "Gusto, on the other hand, redefined payroll processing for CloudCPA by automating and simplifying the entire payroll experience. The seamless integration of Clockwork's Headcount Planner feature with major payroll systems like Gusto meant that essential employee details, including roles and salaries, could be effortlessly synchronized, facilitating dynamic projections for staffing changes and budgeting over a five-year horizon."
- <a href="https://www.clockwork.ai/case-studies/success-story-how-clockwork-helped-decide-on-a-hiring-plan">https://www.clockwork.ai/case-studies/success-story-how-clockwork-helped-decide-on-a-hiring-plan</a>
  - "GRP21 would be able to map out how each impending decision affected their cash and ability to perform on active projects. They are working towards becoming one of the largest digital agencies and want more hires, more clients, and be able to offer more services. They need to have real clarity of what was happening with their finances and not have to always depend on their accountant or bookkeeper for answers.
  - "The GRP21 team was able to map out what that additional hire would do to their bottom line and the timing they had to make that decision. They decided that hiring that individual at the current moment would put too much strain on their cash situation and realized they would be able to hire someone more qualified in 2 months and since then, the agency has grown by over 200% in all aspects."

## **Company Overview: Clockwork Accounting**

Clockwork is an innovative financial planning and analysis (FP&A) platform designed to simplify financial management for small to medium-sized businesses (SMBs). Founded by Fady Hawatmeh, the company aims to empower business owners by automating complex financial forecasting and analysis tasks, enabling users to focus on strategic decision-making rather than getting bogged down in spreadsheets.

# **Company History and Evolution**

Clockwork was founded with the mission of addressing the financial management pain points experienced by small businesses. The company launched its platform to automate the creation of financial projections and cash flow forecasts by integrating seamlessly with popular

accounting software like QuickBooks Online and Xero. This integration allows users to pull historical financial data quickly, enabling them to generate accurate forecasts in minutes rather than days or weeks. The company has undergone strategic pivots since its inception:

- Initial Focus: Initially aimed at providing basic forecasting tools.
- **Expansion**: As they gathered user feedback, they expanded their offerings to include scenario planning, variance analysis, and real-time collaboration features.
- **Al Integration**: The introduction of machine learning capabilities allowed Clockwork to enhance its forecasting accuracy by learning from historical trends and seasonality.

## **Use of AI and Language Models**

Clockwork leverages artificial intelligence extensively within its platform:

- Forecasting Automation: The platform uses machine learning algorithms to analyze up
  to three years of financial data, generating five-year projections and 52-week cash flow
  forecasts automatically.
- **Scenario Planning**: Users can create unlimited "what-if" scenarios with just a few clicks, allowing them to model various business situations without extensive manual input.
- Data Analysis: All helps sift through large datasets to identify trends and provide actionable insights for strategic decision-making.

# **Recruiting Insights and Tech Stack**

An analysis of Clockwork's recruiting positions indicates a strong emphasis on technology skills related to their platform's development:

- **Software Development**: Positions often seek expertise in Python, JavaScript, or similar programming languages, indicating a robust backend infrastructure.
- **Data Science**: Roles related to data analytics suggest that the company prioritizes hiring individuals with experience in machine learning and data modeling.
- **Cloud Integration**: Given their partnerships with QuickBooks Online and Xero, familiarity with cloud-based technologies is essential for new hires.

This tech stack reflects Clockwork's commitment to maintaining a modern, scalable platform that can adapt to evolving market needs while providing cutting-edge financial solutions for SMBs.

### Conclusion

Clockwork stands out in the Al-driven accounting space by focusing on simplifying complex financial processes for small businesses. With a founder who has deep industry knowledge and experience, the company has successfully integrated advanced Al capabilities into its platform.

Its ongoing commitment to innovation positions it well within a rapidly evolving market that increasingly values efficiency and accessibility in financial management.

# **Datasnipper**

Automatically extract and cross-reference supporting documentation to your sample data, increasing the quality of your work processes.

#### References

- Perplexity search
- DataSnipper Raises \$100M at \$1B Valuation to Empower Auditors with Al
- Forbes report

## **Company Overview**

**DataSnipper** is a leading provider of intelligent automation solutions tailored for the audit and finance sectors. Founded in 2017 in Amsterdam, Netherlands, the company aims to enhance productivity and mitigate risks associated with manual financial processes. DataSnipper's platform automates the extraction, cross-referencing, and verification of financial data within Excel, significantly improving efficiency for audit professionals.

Its Al-powered technology makes auditing and accounting more efficient, "snipping" numbers from loose reams of receipts, bank statements or handwritten notes and matching them with records of expenses while ensuring numbers add up. Accounting firms pay a subscription fee per user for the service, with 500,000 auditors in 125 countries signed on. Revenue grew 150% in 2023 to finish at a run rate of more than \$45 million. DataSnipper opened its first U.S. office in New York in 2023 to better serve customers—40% of its revenue comes from the U.S.—and raised \$100 million in January to fund further expansion.

## Founders and Background

DataSnipper was co-founded by Maarten Alblas, Jonas Ruyter, and Kai Bakker.

- Maarten Alblas has a background in Computer Science and Economics from the University of Amsterdam. He also holds a Machine Learning Certificate from Coursera and has experience as a software engineer at Xomnia.
- Jonas Ruyter brings expertise in software development and project management, having worked in various tech roles prior to founding DataSnipper.
- Kai Bakker has a strong foundation in data analytics and software engineering, contributing to the technical development of DataSnipper's products.

The founders recognized that audit work was heavily reliant on manual and repetitive tasks, which could be streamlined through intelligent automation. Their vision was to transform the lives of audit and finance professionals by providing them with tools that enhance their efficiency and effectiveness.

## **Company History and Pivots**

DataSnipper initially bootstrapped its operations for four years before raising significant funding. In 2024, the company secured a Series B funding round of \$100 million to accelerate its AI capabilities and expand its market presence, particularly in the U.S. market. During the COVID-19 pandemic, DataSnipper adapted by conducting product demos via video calls, which helped maintain engagement with potential clients. The company's strategic pivot included opening an office in New York to better align with U.S. buyer expectations and subsequently expanding into Asia Pacific with a new office in Kuala Lumpur. This move reflects their commitment to scaling operations while responding to global market demands.

## **Funding**

Funding: \$200 million from Insight Partners and Index Ventures.

Latest valuation: \$1 billion.

Date of last valuation: January 2024.

## **Use of Language Models and Al**

DataSnipper integrates advanced AI technologies into its platform to automate various tasks within the audit process. The company employs:

- Large Language Models (LLMs): These models are utilized for natural language processing tasks, enabling users to extract relevant information from unstructured documents efficiently.
- **Deep Learning Techniques**: These are applied for pattern recognition within financial data, enhancing the accuracy of data extraction.
- Rules-Based Systems: These systems help ensure compliance with auditing standards by automating decision-making processes based on predefined rules.

DataSnipper adheres to principles that emphasize traceability, actionability, user-centric design, and specificity in its AI solutions. This approach ensures that users can trace outputs back to source documents while enabling actionable insights directly integrated into their workflows.

## **Technology Stack Inference from Recruiting Positions**

DataSnipper's career listings indicate a robust tech stack that supports its automation platform:

- **Programming Languages**: Positions for software engineers suggest proficiency in languages such as Python and JavaScript.
- **Frameworks & Tools**: The presence of roles like Senior Frontend Engineer indicates usage of modern web frameworks (e.g., React or Angular).
- Cloud Technologies: Job descriptions highlight experience with cloud platforms, indicating that DataSnipper likely utilizes cloud services for scalability and data management.
- **DevOps Practices**: Roles related to site reliability engineering suggest an emphasis on continuous integration/continuous deployment (CI/CD) practices.

Overall, DataSnipper represents a compelling opportunity within the AI for accounting space, leveraging advanced technologies to address critical challenges faced by finance professionals while positioning itself for significant growth in the coming years.

# **Docyt**

End to end bookkeeping automation.

Typically, 80% of accounting transactions are auto-categorized based on recognizable attributes related to the expense, revenue and learnings from the client's operations. The remaining 20% await the accountant's classification. If there is uncertainty regarding a transaction's categorization, it is marked for further examination, allowing the client to provide guidance on the correct classification. Docyt's Generative AI tackles this remaining 20% by summarizing human-to-human conversations into accounting categorization and journal entries, thereby reducing the need for manual bookkeeping and liberating accountants to focus on tasks of greater strategic value.

### References

Perplexity search

### **Founder**

#### Sidharth Saxena

- CEO at Docyt (2016 Present)
- Previous positions: User Experience Architect at Primary Data Inc (June 2014 August 2015), Staff User Experience Designer at VMware (October 2011 June 2014), Founding Designer at Rendewoo (April 2011 August 2012), Senior User Experience Designer at Oracle USA (July 2005 October 2011), User Experience Design at Whirlpool USA (May 2004 August 2004)

 Education: B. Design from Indian Institute of Technology, Guwahati; MS from Indiana University Bloomington

## **Executive Summary**

Docyt is a rapidly growing Al-powered accounting automation platform that is revolutionizing the way businesses manage their finances. Founded in 2019 by Sid Saxena and Sugam Pandey, Docyt has quickly become a leader in the Al accounting space by leveraging advanced Al models to streamline accounting workflows and provide real-time financial insights.

## **Company Overview**

Docyt was founded in 2019 by Sid Saxena and Sugam Pandey, two experienced entrepreneurs with a passion for using technology to solve complex problems. Saxena previously co-founded Zenefit, a cloud-based HR and benefits platform, while Pandey has a background in machine learning and data engineering, having worked at companies like Walmart Labs and Intuit. The company initially focused on building a cloud-based accounting platform for small and medium-sized businesses (SMBs), but quickly pivoted to incorporating Al and machine learning into their offering. In 2021, Docyt launched their Precision Al models, which are capable of automating over 80% of accounting workflows with 100% accuracy.

## Al and Language Models

Docyt's Al-powered accounting platform is built on a foundation of advanced language models and Al algorithms. The company utilizes a combination of fine-tuned large language models (LLMs), micro Al models, and Precision Al models to handle various aspects of the accounting process. Precision Al Models: These models are responsible for automating 80% of accounting workflows with 100% accuracy. They learn from historical accounting data to perform tasks like categorization and data extraction. Predictive Al Models: This suite of models includes fine-tuned LLMs and micro Al models like Generative Al. They manage accounting tasks based on configuration confidence and apply to completely new, unseen transactions. Generative Al: Docyt's Generative Al models are used to summarize human-to-human conversations into accounting categorization and journal entries, reducing the need for manual bookkeeping.

# **Recruiting and Tech Stack**

Docyt is actively hiring for several key positions in Bangalore. Tech stack:

- Ruby, Ruby on Rails
- ReactJS, Typescript, HTML/CSS/JS
- Good understanding of API design, HTTP, endpoints, REST, JSON
- Experience working with SQL databases PostgreSQL or MySQL

- CDN to optimize resource bandwidth
- AB Test frameworks
- SOC2 Type II compliance
- Postgres, MongoDB, RabbitMQ, Kafka, and Elasticsearch
- Apache Kafka, Apache Airflow, or AWS Glue
- Swagger-Codegen
- AWS

### Conclusion

Docyt is well-positioned to continue its rapid growth in the AI accounting space. With a strong founding team, a proven track record of innovation, and a robust AI-powered platform, the company is poised to disrupt the traditional accounting industry. As Docyt continues to expand its offerings and customer base, it will be interesting to see how they leverage their AI capabilities to provide even more value to businesses of all sizes.

# <u>GaapRt</u>

- Accounting for lease and sales contracts.
- Based in Chicago, 2-10 employees on LinkedIn

# **InScope**

Automating financial statements and audits.

### References

- https://www.linkedin.com/company/inscopehg/
- <a href="https://hnhiring.com/september-2023?technologies=python">https://hnhiring.com/september-2023?technologies=python</a>

Avy Faingezicht used to be CTO, he left the company earlier .

# **Klarity**

### References

- Product demo
- https://www.ycombinator.com/companies/klarity
- Tech Crunch: Klarity lands \$18M to read scores of documents so you don't have to

 Andrew and Nischal of Contract Lawyer KlarityLaw - LegalTechLIVE - 052 (2017, before pivoting into Accounting space)

## Founders and Background

- Ondrej Antos, co-founder and CEO
- Nishal Nadhamuni, co-founder and CTO

# **Product and Implementation**

Klarity does Al-Powered Document Processing Automation for Accounting and Compliance - with an initial emphasis on automated contract review and revenue recognition.

It is a SAAS product, all done with LLM prompt engineering on the back end. There is no LLM fine tuning needed, at least not at this point.

## Earlier use of Machine Learning, current use of LLMs

Initially, the product was (probably) NLP based. When ChatGPT came along, it pivoted into using LLMs instead. This was a relatively difficult transition that took a few months, while customers were already using the Klarity product.

### **Pivots**

The company started with a document processing software tool that would have worked in any vertical - then, pivoted through the verticals 3-4 times, at one point doing document automation for NDAs - before it settled on the accounting vertical. And, more specifically, on contract review and revenue recognition workflows.

The reason Klarity did not get traction for NDA processing, when having lawyers as customers was - on one hand, NDAs can have very specific nuances that are difficult to capture algorithmically. Also, lawyers love to do their own reading/analysis, and are billing by the hour. A product that automates their work actually can reduce the hourly billed work that they charge.

One of the lessons learned, during development, was to focus LLM prompt engineering on problems that are low hanging fruits. If a problem cannot be quickly solved, within a week - it is best to move on, especially if the problem is low-value. Some use cases are indeed quite difficult to solve with LLMs, and the only way to really tell if that is the case is to try it 'hands on'.

### **Recruiting Strategy**

The engineers on the team are not machine learning PhDs, but merely prompt engineers - i.e., they call ChatGPT APIs and pass in the PDF contents along with questions about what needs to be extracted.

# **Numeric**

Organize financial close, streamline reconciliations, and leverage AI for auto-drafted flux analysis and lightning-fast reporting.

### References

Perplexity Search

## **Company Overview**

**Numeric.io** is an Al-powered accounting automation platform designed to alleviate manual tasks for accountants, allowing them to focus on higher-value activities. Founded approximately three years ago, Numeric has rapidly gained traction and currently serves hundreds of companies, including notable clients like Plaid, Brex, and Wealthfront.

Key features include reconciliation automation, close checklist management, flux analysis, and reporting from underlying ERP data. Built to scale with your team, you can start for free before graduating into powerful, paid plans.

### Founders and Background

Numeric was co-founded by Parker Gilbert, Anthony Alvernaz, and Andrew Bihl.

Parker Gilbert serves as the CEO. Prior to Numeric, he led finance and accounting
functions at Hearth, a venture-backed startup. His experience highlighted the
inefficiencies in traditional accounting processes, motivating him to create a solution that
enhances productivity for accounting teams.

- Anthony Alvernaz has a background in finance and accounting, bringing expertise from previous roles in tech-driven financial environments.
- Andrew Bihl, also an experienced engineer, has worked in various capacities within data and accounting technology companies.

The founders recognized a significant issue in the accounting field: a shortage of accountants coupled with an overwhelming amount of manual work. This realization led them to develop Numeric as a solution to streamline accounting processes.

## **Company History and Pivots**

Numeric has undergone strategic pivots since its inception. Initially focused on automating basic accounting tasks, the company has evolved to leverage advanced AI capabilities for more complex functions such as variance analysis and technical accounting research. The company raised \$10 million in funding from prominent investors like Founders Fund and Menlo Ventures to accelerate product development and expand its workforce. One notable pivot was the shift from merely automating tasks to integrating AI deeply into core accounting workflows. This includes using AI to generate preliminary reports and analyses, significantly reducing the time accountants spend on manual data reconciliation.

## **Use of Language Models and Al**

Numeric employs AI extensively throughout its platform. Key applications include:

- Flux Analysis: Al generates initial drafts of variance explanations by analyzing transaction data against historical records, allowing accountants to focus on interpretation rather than data gathering.
- Automated Reporting: The platform can automatically draft reports by querying underlying general ledger data for key drivers of financial changes.
- Technical Accounting Support: Numeric assists with drafting technical documents related to accounting standards, enhancing efficiency for accountants who need to produce detailed compliance documentation.

These features exemplify how Numeric integrates AI into everyday accounting tasks, aiming to transform the role of accountants from data processors to strategic advisors.

## **Blog posts** by Numeric

- The AI Guide for Accountants
- The Tools You Need in Your 2024 Accounting Tech Stack
- Ahead of the Game: How Accountants Can Implement Al Today
- 9 Signs You Should Migrate ERPs
- Ahead of the Game: How Accountants Can Implement Al Today

- Solving the Accountant Shortage: Leaning on Al is Key
- 5 Questions You Should Ask When Building Out An Accounting Tech Stack
- What Really Is The Month-end Close (And What's Just Fine To Do at Quarter-end)
- The Tools You Need in Your 2024 Accounting Tech Stack
- Blackline Review: Is Blackline Worth It?
- 5 Accounting Emails You Should Have Automated Yesterday
- Navigating Your First 30 Days: A Checklist for New Controllers

# Glean

Glean is an Intelligent Bill Pay solution that combines smart automation with spend intelligence.

### References

- https://www.linkedin.com/company/glean-ai/
- Bridging the Spend Management Visibility/Data Gap (2022)

### **Founders**

- Howard Katzenberg
  - "Before founding Glean.ai, I spent 10 years as CFO for two major fintechs (OnDeck and Better). The finance teams I led were very analytical - we had real-time dashboards set up on every aspect of our business ... except on our spending with vendors. As a result, it was difficult to know if our vendor relationships were creating value and driving ROI.
  - "That was a problem. So, at least once a year, I'd gather my team to conduct a
    manual audit of our vendor costs. This involved printing months worth of bills and
    then spending weeks analyzing them at the line-item level, ensuring the bills
    complied with our contracts, manually calculating time-series trends in
    spreadsheets, and then asking tons of questions to budget owners.
  - "It was a time-consuming and painful process, but the last time we did this in 2019, my team identified over \$1.5 million of annual savings, or about 15% of our total vendor spend at the time.
  - "That money was silently walking out the door in the form of products/services we didn't need, missed terminations, poorly negotiated deals, duplicative vendors, etc... Importantly, it was cash we didn't have available to increase our marketing budget to acquire more customers, hire more software engineers to improve our product, or just take to the bottom line to improve margins.
  - "Accordingly, in early 2020, I felt compelled to leave my CFO career to build a company that could automate the audit process we conducted - by using AI/ML

- to conduct instant spend forensics on bills and proactively identify savings opportunities.
- "Glean.ai's raised \$14 million to date from top tier fintech investors. In 2022, not only has our customer count grown significantly, but we've enabled our customers to shave 13% off their annual vendor spend on average."

## **Glean Blog**

 Demystifying Accounts Receivable vs. Accounts Payable: Key Differences and Functions

# **Trullion**

Trullion's OCR technology automatically extracts critical data from contracts, documents, and financial statements, translating unstructured information into structured accounting entries. This ensures compliance with ASC 842, IFRS 16, and other global accounting standards. Beyond this feature, Trullion's AI tools significantly reduce manual workload with automated data validation and reconciliation: thus, teams can be confident that financial data is accurate in both their contracts and their books.

Lease accounting is a beachhead for Trullion. The initials workflows supported are in that space, but the tech can be used for multiple other use cases.

### References

https://www.linkedin.com/company/trullion/

### **Company Overview**

**Trullion** is an Al-powered SaaS platform designed to automate accounting workflows, primarily aimed at CFOs, accountants, and auditors. The company focuses on bridging the gap between structured and unstructured data in accounting by utilizing Al to read and interpret documents such as PDFs and Excel files. This capability allows Trullion to streamline processes like lease accounting and revenue recognition, thereby enhancing efficiency and accuracy in financial reporting.

## Founders and Background

<u>Isaac Heller</u>, the CEO and co-founder of Trullion, has a robust background in finance and software. He earned a BA from the University of Texas at Austin and an MBA from the University of Texas at Dallas. Before founding Trullion, Heller was involved in a successful IPO

with Sabre Holdings in 2014, which provided him with significant experience in navigating complex regulatory environments related to accounting standards set by FASB, GASB, and IASB. His expertise has been instrumental in establishing partnerships with various accounting leaders.

### **Engineering**

Based in Israel.

### **Case Studies**

- Claroty Achieves 90% Time Savings in Lease Management with Trullion's Al-Powered Solution
  - "With Trullion, the Claroty Finance team found their work much less cumbersome. They could upload multiple contracts, use Trullion's features to understand accounting treatments, and provide valuable input to management. Trullion's AI easily scanned contracts to extract important information like lease terms, payments, start dates, and end dates.
  - "Before Trullion, Claroty relied on Excel spreadsheets to summarize rent payments and terms—a time-consuming and frustrating process. Ron Kariv, Controller at Claroty, explains, "What's unique about the Trullion system is that I don't need to dive into contracts; it shows me the specific details I need, like monthly payment schedules and contract terms. This feature is incredibly helpful not just for accounting, but also for analyzing cash flows and forecasting expenses for the next quarter or year."
- How GRF CPAs & Advisors Revolutionized Their Audit Workflow With Trullion
  - "Most of GRF's clients provide the firm with documentation such as invoices and contracts by uploading such documentation via an online portal a process that can be challenging to keep organized. This creates a time-consuming task for the GRF team to gather and classify these materials, it creates the risk of missing something important, and introduces friction and frustration into the process because the audit team may request a document that the client thinks has already been delivered.
  - "For employees, performing a manual test of controls for example, involves ticking and tying documents and figures before generating a work paper – actions that are mission critical yet resource intensive.
  - "Tricia and her team deployed Trullion's Al-Powered audit tools at GRF, delivered and integrated with white glove treatment from beginning to end by Trullion's dedicated team of solution experts.
  - "The results were nothing short of phenomenal when using Trullion's Test of Details module: "workflow time was reduced by 40%, and I anticipate 50-90% time savings in the near future."

- "Tricia and her team love the fact that information can be scanned and searched for so effortlessly, enabling the team to assess if anything has been missed, and stay on top of all documentation within one secure, cloud-based platform.
- "When using Trullion for the first time, the GRF team were amazed how easy it was to integrate the tools with their workflows. For example, being able to effortlessly drop information into the client folder, and instantly have the work paper 80% complete. This results in a huge efficiency boost, especially with increasingly tight deadlines across the industry.

# **Ramp**

Ramp issues corporate credit cards, tracks spending on the cards, and automates expense reporting and reconciliation.

It integrates with ERPs and banks, and manages expenses and accounts payable.

Al is integral to Ramp's ability to automate and optimize business expense processes: for one, it powers Ramp's approvals workflows, automatically routing expense requests to the appropriate managers based on company policies. Concurrently, Ramp's Al continuously learns from user behavior, improving over time to deliver more personalized and actionable insights. This allows businesses to control spending, enhance compliance, and drive smarter financial decisions.

With the platform's credit cards, teams can uncover phantom subscription spending, route approval workflows, and limit spending per category.

By Sept '24, there are 12,000 businesses on Ramp.

#### References

- No Priors Ep. 76 | With Ramp Co-Founders Eric Glyman and Karim Ativeh
- Ramp demo

## **Ramp Blog**

- How Ramp builds customer-first Al
- B2B payments: A guide on what to use (and when)
- What is Procurement?

### **Case Studies**

- How Liquid Measurement Systems reduced fraud, improved UX, and drove efficiency with Ramp
- How Ramp helped Quora's finance team streamline operations, simplify AP, and stay lean
- How Skin Pharm streamlined approvals, improved procurement workflow, and leveled up its team with Ramp

# **Brex**

Brex offers a comprehensive suite of financial services including corporate cards, cash management accounts, and expense management tools.

Brex refers to itself as "the AI-powered spend platform" and that's evident across its capabilities. One unique offering comes in the form of AI-generated suggestions that help to streamline GL coding and merchant mapping, all made possible by Brex's integrations with most major ERPs. In addition, teams can embed their company policies in Brex's platform and AI will auto-enforce custom controls across Brex cards, reimbursements, travel platforms, and invoices.

## **Company Overview**

Brex is a financial technology company that specializes in corporate spend management solutions, offering services such as corporate cards and expense management. Founded in 2017 by **Henrique Dubugras** and **Pedro Franceschi**, Brex aims to simplify financial processes for businesses, particularly startups and small to medium enterprises. The company has gained recognition for its innovative approach to expense management, leveraging artificial intelligence (AI) and machine learning (ML) to enhance efficiency and compliance.

## **Founders and Background**

## **Henrique Dubugras**

- Education: Studied at Stanford University.
- **Previous Experience**: Co-founded Pagar.me, a Brazilian payment processor, which was acquired by a larger company.
- Role at Brex: Co-CEO, focusing on product development and strategy.

### Pedro Franceschi

- Education: Also studied at Stanford University.
- Previous Experience: Worked in various tech roles before co-founding Brex.
- Role at Brex: Co-CEO, concentrating on operations and growth strategies.

Together, they leveraged their backgrounds in technology and finance to create a platform that addresses the complexities of corporate spending.

## **Company History and Pivots**

Brex was launched with the intent to provide a more efficient alternative to traditional corporate credit cards. Initially focused on startups, the company quickly expanded its offerings to include features like automated expense reporting and real-time insights into spending patterns.

## **Key Pivots:**

- 1. **Initial Focus on Startups**: Originally targeted at tech startups, offering tailored financial products that met their unique needs.
- 2. **Expansion of Services**: Over time, Brex broadened its services to cater to various industries, including enterprise-level clients.
- 3. **Integration of AI Technologies**: The most significant pivot came with the integration of AI and ML technologies into their platform, enhancing their service offerings and automating many manual processes.

### **Brex Blog**

- A survival guide for CFOs who are not CPAs
- The essential guide to ERP integration.

# **TruePrep**

Tax research and advisory, simplified. Customers are accountants.

### References

- <a href="https://www.linkedin.com/company/trueprep-ai/">https://www.linkedin.com/company/trueprep-ai/</a>
- Demo
- Spark by Rightworks Labs: <u>Episode 7 Old Problems</u>, <u>Al Solutions</u>: <u>Innovation in Tax</u>
   Prep with David Haase

### **Company Overview**

TruePrep is an innovative company in the accounting technology space, founded in 2023 with a mission to enhance tax accounting software for CPAs and accounting firms. The company aims to provide affordable, high-quality software solutions that empower accountants to focus on their core competencies.

## Founders and Background

<u>Dave Haase</u> is the founder and CEO of TruePrep. He has a robust background in finance and management, having worked at Microsoft and held various positions at Eli Lilly and General Mills. Haase acquired an accounting firm in 2015, which provided him with firsthand experience of the challenges faced by tax professionals. He holds a CPA and an MBA from Stanford University.

<u>Sunny Shah</u>, the Chief Technology Officer (CTO), brings extensive engineering experience to the team. He has previously worked on machine learning personalization at companies like Cisco, Yahoo, and Iterable, and was the CTO of a Y Combinator startup before joining TruePrep.

<u>Jack Flitcroft</u>, the Head of AI, has a strong background in artificial intelligence, particularly in computer vision. His previous roles include AI research in cardiology and data science positions at GE and an e-commerce startup.

### **David Haase Interview**

Founder Dave Haase had an accounting company, and noticed how difficult it was to integrate the right software.

He does not think he could have started the company without being in the industry for a long time. You have to have deep knowledge of the tax world. Risk of making mistakes makes it difficult to innovate.

Started with computer vision in multimodal LLMs. However, computer vision is not accurate enough for accounting. Founder used his experience from a previous job doing document management for chemical manufacturing. He took the same ideas, and used them for tax prep. Software can parse returns, look at tax law, and suggest changes to the return.

There is healthy skepticism in the CPA profession. But adoption is necessary. There is a lot of interest, and misunderstanding of Al. Less than 3 of 10 CPAs are familiar with Al. CPAs start using chatgpt. But, we need an agentic system, RAG that prevents hallucination. Need to look, say, only at Wisconsin state law.

Talking about AI is good for initial conversation, but then there is a skepticism hurdle to overcome.

When you submit a question, it will evaluate that it's, for example, a state law question - and look in the right place. We can look at a change in tax law, for a particular client.

There are built-in prompt suggestions. You can save prompts for the team, at the top. There are few competitors, and not in the tax space.

## **Company History and Pivots**

TruePrep was established in response to frustrations with existing tax software solutions. The founders recognized a gap in the market for software that truly meets the needs of tax professionals. Since its inception, TruePrep has focused on building a user-friendly platform that integrates advanced technologies to streamline tax processes. The company has pivoted towards leveraging artificial intelligence and machine learning to enhance its offerings. This shift reflects a broader trend in the accounting industry where firms are increasingly adopting technology to improve efficiency and accuracy.

## **TruePrep Blog**

- 7 Accounting Technology Solutions That Are Transforming Tax Research
- How Al Tax Compliance Tools Decipher Complex Codes Faster

## Vic.ai

Optimize Accounts Payable with Al. Vic provides <u>invoice processing</u>, <u>PO matching</u>, <u>approval</u> flows, payments, and <u>analytics</u>.

Vic.ai primarily serves mid-market and enterprise companies in the U.S., Canada, and the Nordics. The platform is particularly beneficial for industries such as real estate management, transportation and logistics, retail, and manufacturing — or organizations with multiple entities, complex AP departments, and those processing more than 500 invoices a month.

The company has offices in New York, also in Oslo, which houses its engineering and development team, and South Florida.

The company has created a proprietary language independent document interpretation technology that utilizes computer vision and image classification. Their systems can automate bookkeeping through algorithms supported by machine learning. Their systems have trained on over one-hundred million real accounting transactions.

### References

- SAAS CFO: Interview with Alex Hagerup (2023)
- Vic.ai demo
- What does Vic do
- https://golden.com/wiki/Vic.ai-PPRA53E
- Back to Finance: Why I'm Joining the Board of Vic.ai

## **Founding History and Founders**

Vic.ai was founded in 2016 by:

- Alexander Hagerup (Co-founder & CEO). "Working with Alex is like teaching the 301 class, not the 101 class. He's already a successful entrepreneur, having built and sold his first company in 2014 after nearly a decade's work." (link)
  - In <u>Autonomy vs. Automation in Accounting explained by Vic.ai's CEO Alex</u>
     <u>Hagerup</u> (2023), a 1h long interview, Hagerup talks about his early path as an
     entrepreneur, about what led him to found Vic.ai, about current & future plans.
- Kristoffer Roil (Co-founder & COO)
- Rune Løyning (Co-founder)

### Founder/CEO Alex Hagerup Interview

Alex grew up in Norway. Both his mother and father were small business owners. His mother was an accountant, and she taught him how to sell books. Alex went to college to study accounting, where he did most of the courses, but got attracted to start his first company before finishing college.

He has always been on the path of building startups, since he was 15.

Both him and his co-founder in Norway had a company building an accounting ERP - which can be thought of as the equivalent of NetSuite or Inventory in the US. The two spent about 10 years at that company, eventually taking it public.

They observed Accounting at scale on that platform. The platform had 30,000, 40,000 customers, and hundreds of accountants.

Accounting is very similar around the world, says Hagerup. You have basically a lot of financial transactions that need to make their way to the ledger. In between the transaction and the ledger, you have humans and you have rules.

What is difficult about automating specific accounting processes with AI? Accounting is deterministic. While AI, fundamentally, is not.

However, when you use natural language processing, you get confidence intervals as part of the reported results. And if the confidence is above a threshold, you can fully automate. If it's under the threshold, you can retrain the model with user entries, and use the retrained model to get more accurate automation..

Vic.ai looked at all accounting processes, and started with the accounts payable, which is a huge and complicated problem. They decided - let's do that as a beachhead.

Vic has completed accounts payables support over six years. They have 3,000 companies at this point using it. And the plan is to expand slowly into other parts of accounting.

Hagen says, eventually, Vic will have a number of AI agents that will be doing accounting processes over, mostly autonomously.

The challenge with accounting is that every company has its own version of the general ledger and the dimensions but also every company has its own interpretation of it. Every company has its own version of how to use a cost center, or how to classify a person as General and Administrative Expenses, or how to assign the cost of sales .

But Hagen feels the technology already exists at this point and over the next few years it's just a passing and pushing to get into production

Vic has been able to use AI in accounting for a long time, and to do it accurately, bringing it to a level of precision that allows autonomy. At this point, Hagen thinks there's going to be a rush of companies to implement AI for accounting - and some of them will discover that it's more complicated than they think it is.

Companies will find out that it's easy to put together a demo - but getting into the level of precision required for production is another thing.

Essentially, Al for invoicing is already here, says Hagen. Vic has been doing it for 6 years.

The same can be done for Accounts Receivable, or Closing - either by Vic, as an integrated platform, or by another company who can do Accounts Receivable or Closing. Then, the industry can use either an integrated product of all accounting operations - or different software tools for different accounting operations.

Vic was founded in early 2017. They had played around already with software for it for a few years, but that was the year of incorporation.

Vic's main corporate offices are in New York City, but the engineering team is remote in Norway.

Team size is about 100 people, currently. The company has raised Series C funding.

What is the go to market and what is the ideal customer profile? Vic started with accounting companies as pilot customers. Then, once the product was fully released, it moved to mid-market and enterprises.

Vic does not do small and medium businesses - also, it does not do do very large Enterprise customers.

Enterprises with income of over 100 million are fine, but if you go to very large customers, the sales cycle is longer and the integration is more difficult. That is expected, as larger companies actually derive a lot more benefits from AI if you do automation.

Vic also specialize in particular verticals - there are certain adaptations of software that are unique to each vertical. Vic has lots of customers in the real estate sector, hospitality, retail, professional technical services, and a few others.

The AI-based platform has been extended to purchase order matching, and launched bill pay expanding AI-based accounts payable process, and broadening to adjacent accounting processes.

### How does Vic.ai work?

- 1. *Invoices are ingested into the system:* Vic.ai can ingest invoices through various methods, such as email, manual upload, mobile app, or even EDI, API, or SFTP.
- 2. *Invoice data is extracted:* Vic.ai's proprietary AI algorithms read and extract data from the invoice, predicting header-level and line-item level data. If there's a PO associated with the invoices, it gets automatically matched, reducing human intervention. Vic.ai can handle any invoice format or structure, and no templates or rules are required.
- 1. **Human review:** AP team members can review the AI data extractions in Vic.ai and validate the predictions. The AI learns from these interactions, improving accuracy with every invoice processed. Once an invoice is approved, it is sent for payment.
- 2. **Autonomous approvals:** Once the AP team is ready and pleased with the Al's accuracy and confidence rates, they can turn on autonomous approvals within Vic.ai. This allows the technology to send invoices for payment without human intervention.
- 3. **Payment processing:** Vic.ai can process and send payments and supports all payment types, including checks, ACH, and virtual cards. Once the payment is sent, it is also posted to the ERP system for tracking purposes.
- Insights and analytics: Vic.ai offers real-time insights through customizable dashboards, including performance data based on user, region, Al accuracy, and processing time. Varying <u>analytics packages</u> are available to meet the needs of all customers.
- 5. *ERP integrations:* Vic.ai <u>integrates with the leading ERP systems</u>, and our open API is flexible and scalable enough to handle any environment or use case. Netsuite, Coupa,

Workday, Microsoft Dynamics, and SAP are just some of the ERPs that Vic.ai can integrate with to support the entire AP process and tech stack.

#### Demo

#### Vic.ai demo

- Invoices have a more standard format than other type of documents
- NLP is run on OCR of document, to extract
  - Company name
  - o Invoice number
  - Invoice date
  - Due date
  - Line items, with description and price
- Extracted fields are presented with confidence score
  - UI presents confidence level of extracted field as green/yellow/red bar, to allow quick review by human
  - When clicked, the extracted field, or item line are highlighted in the document display (other companies call this an 'auto-scroll feature')
  - After documents are posted, with manual modification model is re-trained, and confidence score is updated.
    - Not clear if confidence level that triggers auto-pilot for invoices is configurable.
- NLP model was trained on 1,000,000 documents (according to the demo), and is re-trained with customer updates.
- Multi-invoice documents are split manually. NLP is run automatically on split documents.
- Matching of purchase order is done at the Quantity and Unit Price level.
  - Can set risk tolerance in how different the price is in the purchase order from the invoice. Default is 1%.
- Analytics dashboard shows how approval of invoice, for 20,000 invoices/month, for a customer, went down from 120 secs to 40 secs
- How is model retrained?
  - If customer makes available 1-2 years of coded invoice data, model is retrained for customer. This embeds tribal knowledge in model.
- The most important KPI they track is the % of invoices handled autonomously. They
  have 70% full autonomy, and another 15% of invoices are detected correctly by AI,
  but need to be manually approved. The last 15% must be corrected manually.

### **Case Studies**

- https://www.vic.ai/resources/why-heart-aerospace-chose-vic-ai
- Global school operator processes invoices 60% faster within the first 3 months with AP autonomy

# **Embedded Accounting**

### **Ember**

Automated expense management, MTD-ready software and on-demand accounting support — all in one app.

### **Functional Finance**

The smart way to manage billing, invoicing, and reconciliation for MGAs, Wholesalers and Insurers. They are an alternative to Guidewire specifically in the Billing for Insurance space.

### **Functional Finance Blog**

• Starting an MGA: The Critical Building Blocks of a Highly Effective Tech Stack

### Layer

Embedded Accounting for SMB platforms - Layer helps software companies launch accounting to their SMB customers. Increase engagement, drive revenue, and become the financial home for your SMBs.

## <u>Teal</u>

Teal helps SMB software companies build accounting products for their customers.