

Harry Alpha

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Full Stack Developer with 4+ years of experience building scalable, high-performance applications across web and mobile platforms. Specialised in TypeScript, React, AWS (CDK, Lambda, Cognito), and GraphQL, with a proven track record delivering developer tooling, SaaS platforms, and complex backend systems. Comfortable leading frontend architecture, deploying robust CI/CD pipelines, and integrating AI-powered features using LLMs. Thrive in fast-moving, product-driven teams.

Technical Skills

Languages & Frameworks: TypeScript, JavaScript, Python, Go, SQL, React, Electron, React Native, Next.js, Remix, Node.js.

Cloud & DevOps: Extensive use of **AWS** (CDK, Lambda, Cognito, S3, API Gateway, Route53, SES, EC2, CloudFront, Step Functions, EventBridge, AppSync). Built CI/CD pipelines using **GitLab CI**, **CircleCI**, **Fastlane**, and **Doppler**. Deployed with **Docker** and **Nginx** for secure, scalable infra.

APIs & Integrations: Developed **GraphQL** and REST APIs with **Hasura**, **AppSync**, **Node.js**, and **Go**. Integrated external APIs including **OpenAI** (LLMs), **Stripe** (billing), and **Tyk** (gateway/routing). Used **GraphQL Codegen**, **Apollo**, and **React Query** for typed, efficient data fetching.

Databases: Experienced with relational databases (**PostgreSQL**, **MySQL**) and **NoSQL** (**DynamoDB**). Provisioned schema and wrote **SQL** queries/functions. Used **TRPC** and **Convex** for type-safe APIs and real-time subscriptions.

AI & Automation: Integrated AI capabilities via **OpenAI's** Node SDK, **Ollama** and **LangChain**, to deliver summarisation, transcription, and conversational interfaces. Automated video processing with **FFmpeg** and **AWS Transcribe**.

Design Systems & Frontend Tooling: Built design systems with **Tailwind**, **Material UI**, **Shadcn UI**, and **Storybook**. Used **Figma** for UI workflows, **Reanimated** for motion, and **Zod/Yup** for schema validation.

Other Tools & Platforms: Prisma, Contentful, Framer motion, Shopify, Vercel, Expo., Three.js,

Certifications:

- AWS Cloud Practitioner - **December 1st, 2022**
- Mathworks Machine Learning - **2020**
- Leicester Award Gold - **2020**

Education

University Of Leicester - Second Class Honours

Sep 2017 -July 2021

BEng, Electrical, and Electronic Engineering

Notable Courses: Computer Engineering, Machine Learning

Experience

Vulcan Digital Ltd

Founder & Software Consultant

Nov 2023 – Present

London / Remote

- Operating a consultancy and product studio delivering full-stack engineering, AI integration, and scalable SaaS infrastructure.
- Built production systems for clients using React, Node, Convex, React Native, Electron and Hasura, supporting API integrations, infrastructure automation, and CI/CD optimisation.
- Leading development of **Noet**, an AI-powered productivity engine with Slack/GitHub integration and hybrid on-device + cloud LLM orchestration.

Stack: **TypeScript, React, React Native, AWS CDK, Node.js, Stripe, Hasura, Docker, Vercel, FFmpeg**

Unisys · Contract

Nov 2023 - July 2025

Full Stack Developer

London/Remote

- **Led the development and rollout of a React + Vite developer portal**, integrating Swagger UI and Rapidoc to deliver self-serve API access and documentation for external partners.
- **Built and maintained scalable CI/CD pipelines** across multiple microservices using Docker and GitLab CI, improving deployment reliability and reducing release cycle times by 50%.
- **Migrated a legacy Go (Buffalo) backend to Node.js**, streamlining developer experience and reducing cold-start times, utilising the **MySQL** driver for enhanced database interactions.
- **Assisted in designing and implementing a high-performance Go API**, leveraging SQL and caching strategies to optimise throughput for high-traffic endpoints.
- **Integrated and configured Tyk API Gateway**, implementing rate limiting, authentication policies, and service discovery to centralise API access management and to power an interactive API sandbox.
- **Configured JWT authentication via Keycloak**, enabling scoped access tokens for live endpoint testing and improving developer onboarding.
- Stack: **Go, Node.js, Remix, TypeScript, Docker, SQL, React**

Clippa

Aug 2023 - Mar 2025

Founder / CTO

<https://clippa.ai>

- **Spearheaded the development of Clippa**, a video automation platform used by creators and marketers to transcribe, edit, and export content in a fully automated pipeline.
- **Built an end-to-end video processing system** using AWS Transcribe, FFmpeg, and Step Functions to generate subtitles, upscale resolution, reformat aspect ratios, and render branded outputs with custom fonts and overlays.
- **Integrated LangChain for AI-powered speech recognition and metadata extraction**, enhancing searchability and automation.
- **Led Stripe billing implementation**, handling subscription workflows, credit systems, and usage-based metering via Lambda and a custom REST API.
- **Architected the full-stack app with Hasura, AWS CDK, and Vercel**, deploying production-ready infrastructure, CI/CD via CircleCI, and dynamic content delivery using S3 + CloudFront.
- Stack: **Next.js 13, TypeScript, Hasura, AWS CDK, Stripe**

Managed - Full Time

Jul 2021 - Oct 2023

Full Stack Developer

London/Remote

- **Founding developer and senior engineer for Vuteach**, a yet-to-launch LMS platform; led full-stack architecture, integrated the core API, and shaped product direction across frontend, backend, and infrastructure.

- **Owned mobile app delivery**, developing and scaling a React Native and NextJs business management app with complex user flows and real-time data sync.
- **Led all AWS infrastructure using CDK**, provisioning Lambda functions, Cognito auth, SES email flows, EC2 compute, and S3 buckets with full CI/CD automation.
- **Built core CI/CD and deployment pipelines**, owning domain management, staging/production environment parity, and end-to-end release reliability.
- **Integrated OpenAI and other LLM APIs** to deliver intelligent features (summarisation, natural language prompts) across both web and mobile.
- **Optimised Postgres performance** by writing and tuning advanced SQL queries, improving critical load times and query efficiency by over 50%.
- Stack: **AWS CDK, Hasura, Typescript, NextJs, React Native, StoryBook**