

I'm a leader with 12 years of experience shipping services with software. I love digging into new business domains to solve nebulous technical challenges by writing code, mentoring, and collaborating with engineers, product, users, and stakeholders.

## Work Experience

### Principal Engineer

Member Experience Division

### Guild Education

Denver, CO

Mar 2024–Present

- Developed Generative AI OCR solution to process member submitted documents using serverless technologies (AppSync, Lambda, SQS, Websockets, and ChatGPT) delivering feedback during the decreasing applications, reducing processing time and improving member happiness
- Supported international expansion of core product through WeGlot AI translation integration, partnering with a Senior Engineer to create a rollout strategy across frontend applications and creating a local storage solution to persist user selection across micro frontends, enabling Proof of Concept deployment of Guild's Tuition Assistance product in UK and Canada
- Managed a tiger team of 3 engineers to develop a budget management system for our two primary business lines. Collaborated across forecasting, data, product teams in addition to business stakeholders to launch and iterate a budget management service, using a combination of events, ETL pipeline with AWS Glue, and Lambdas to capture, track, and estimate forecasted spend per member application batch. The tool has been deployed to 15 key employer partners improving employer relationships
- Coordinated development lifecycle for Institution List API, involving 3 engineering directors and to implement an interface that removed the need for developers to maintain individual configuration in 5 different codebases, eliminating a 2+ ticket per week launch task and reducing errors during launches.
- Drove the evolution of program status workflows to support Guild's new Benefits Administration System and Domain Driven Design goals, moving statuses out of legacy benefits systems and onto the new budget management tool. Coordinated with directors, principal engineers, product management, and individual contributors to drive alignment on the solution and guide discussions around information flow to consuming services like catalog and application process
- Organized cross-organizational engineering architecture group spanning 5 departments, establishing technical governance processes to align enterprise architecture standards and accelerated delivery velocity

### Staff Software Engineer

Sept 2022–Mar 2024

- Developed an event driven service using AWS serverless stack (Lambda, Kinesis, SQS, DynamoDB) to preprocess member benefits data for catalog, applications, and help pages asynchronous pre-processing service to Architected and shipped event-driven member benefit data projection system using AWS serverless stack (Lambda, Kinesis, SQS, DynamoDB), achieving sub-200ms response times while eliminating external dependency failures for 5+ client applications. Mentored the owning application team engineering team
- Architected system to create a unified experience to direct users to the appropriate Guild product through a seamless experience, mentoring a team of 10 engineers to build, deploy, and maintain a scalable solution using AWS Appsync, Lambda, and integrating with an existing Frontend workflow to improve member satisfaction and reduced help requests.
- Designed zero-downtime migration pattern to transition monolithic applications from EKS to App Runner to support Guild's goal of leaning into managed deployment; creating reusable implementation blueprints for ICs and teams to follow including CI/CD to deploy a single image across Dev, Staging, and Prod environments. Test and validated on 2 separate monoliths before handing off to broader team
- Led migration to decouple monolithic configuration system to serverless architecture using DynamoDB and AppSync, mentoring team members throughout the process and eliminating 3+ weekly support escalations

## Senior Software Engineer

Jul 2021–Sept 2022

- Developed auditable rules engine for member attestations that eliminated manual configuration, introduced attestation tagging, and decreased custom implementation by >99%
- Led refactor of internal Python monolith responsible for intent to enroll workflow, eliminating monthly escalations, improving monoliths to improve code readability, test coverage, and clarifying functionality, reducing
- Created Datadog monitors and alerts, associating logs and tracing to improve system observability and catch bugs before they were reported by users

## Engineering Manager

### Coupa

(Pana Acquisition) Denver, CO

Feb 2021 - June 2021

- Managed a team of 4 full-time and 2 contract engineers through production validation and support for Anthem February go-live on Coupa OBT early access release

## Senior Software Engineer

### Pana

2018–2021

- Architected ingestion system to reconcile external virtual card transactions to customer travel spend with 99.99% automated matching rate, reducing incorrect and manual charges for the finance team
- Supported person engineering efficiency team migrating backend services from Javascript to Typescript
- Migrated Frontend from Backbone.js to React to improve code reliability and developer speed

## Software Engineer

### Havenly

Denver, CO

2017–2018

- Created a junior engineer internship program of two full-time engineers. Handled onboarding, weekly 1:1s, and project mentorship, with a 100% placement rate in their next role
- Developed state machine to manage customer flow through our system, moving into a single source of truth with full Unit Test coverage, decreasing the number of unrated designs by 42% while reducing the development time to introduce new core functionality to under a week
- Implemented UI (React) and Backend (PHP) for a user facing workflow engine to direct users to the appropriate product via a chat interface.

## Test Engineer

2016–2017

- Created and maintained Selenium Python testing framework to improve site stability
- Used NewRelic, AWS, JIRA to address bugs as part of the on-call team to achieve a 99.9% site uptime goal

## Project Manager

### Epic

Madison, WI

2013-2015

- Implemented Epic's Tapestry product on the Kaiser Permanente California Claims connect, a 10 million member health plan with over \$1 billion yearly in claims, overseeing general ledger and contracts
- Coordinated development of requirements for necessary General Ledger functionality between Epic Engineers and Kaiser Permanente stakeholders

## Technologies and Languages

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- **Languages/Frameworks**
  - Javascript, Typescript, Python, Ruby, React, Node.js, Go, AWS SAM, AWS CDK, Git,
- **Infrastructure**
  - Dynamo, Lambda, RDS, S3, CloudFormation, Appsync, Kinesis, SQS, Redis, Kubernetes/Docker/ECS
- **Architecture**
  - Microservices, Event-Driven Architecture, Domain-Driven Design, API Design, Monolithic, SPA

## Projects

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- **Technical blogging** at [urback.net](http://urback.net) on tech leadership and software engineering.
- **Path XYZ** - Taught myself how to deploy and maintain an AWS Fargate app as a contractor for a blockchain startup
- **Mail Sorter** - [LLM driven workflow](#) using Claude and tools to manage incoming unknown mail
- **Curate Games** - Personal [writing](#) about indie video games, board games, and card games

## Education and Certifications

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| • <b>Galvanize, Web Development Immersive, Denver, Colorado.</b> | <b>2015–2016</b> |
| • <b>BA, History, Carleton College, Minnesota.</b>               | <b>2009–2013</b> |
| • <b>AWS Certified Cloud Practitioner.</b>                       | <b>2023</b>      |