Avi Flax

Software Engineer/Architect

Summary

- **Deep expertise** in the Web (especially the back end), APIs, architecture, documentation, data pipelines, stream processing, automated testing, cloud infrastructure, infrastructure-as-code, automated deployments, and continuous delivery
- Extensive experience in the end-to-end software development process: requirements, planning, design, implementation, testing, deployment, operations, support, maintenance
- Highly engaged: collaborative, conscientious, curious, diligent, meticulous, mission-oriented
- Dedicated to diversity, efficiency, equity, inclusion, justice, kindness, & sustainability

Experience

2015-2025

2024–2025 *Chief Software Architect* **Omne**

- Built and refined the team and its strategy, processes, and culture
- Designed and built an ERP system for the manufacturing market
- Tech: PostgreSQL, C#, Playwright, GitHub Actions, Kafka, Azure Cloud, Terraform, Bicep, Docker

2023–2024 Principal Software Engineer Trudy

- Designed, implemented, and maintained:
 - An internal prompt engineering tool for rapidly testing many variations of LLM invocations
 - A prototype SaaS product to enable non-experts to craft, test, and use LLM prompts with multiple LLM providers
- Tech: JavaScript, Google Apps Script, Google Workspace APIs, PostgreSQL, HTMX, Python, Django, Clojure

2022–2023 Staff Software Engineer Latacora

- Designed, implemented, and maintained:
 - A system that manages access to many AWS accounts via AWS SSO and Pulumi
 - A system for deploying multiple tools to many AWS accounts via Pulumi
 - A custom database for crucial business data & CLI tools for integrating the DB with tools such as Fibery and JIRA
- Tech: Clojure, AWS, Pulumi, GitHub Actions, Docker

2020–2021 Senior Director of Technology Modern Energy

- Helped bootstrap a new Retail Energy Provider (REP) in Texas' ERCOT market
- Automated wholesale energy trades for a few different markets via APX MarketSuite
- Helped bootstrap a new HVAC optimization startup by integrating with <u>InfiSense</u> and <u>MelRok</u>
- Tech: Clojure, Kafka, Airflow, Python, Docker, Pulumi, Google Workspace APIs

2017–2020 Principal Software Engineer Funding Circle

- Leveled-up documentation & knowledge sharing at a 250-person software product org
- Conceived, built, released, and maintained <u>FC4</u>, an open-source framework for authoring software architecture diagrams
- Tech: Clojure, Ruby, Kafka, GitHub Actions, Docker, C4 Model, Structurizr

2015–2017 Principal Software Architect Park Assist

- Rewrote a critical data pipeline using stream processing to reduce latency and improve reliability
- Designed, built, maintained, and operated stream data topologies for high-throughput & low-latency data processing
- Leveled-up engineering culture & practices, e.g. introduced infrastructure-as-code, immutable infrastructure, and continuous delivery
- Tech: Ruby, JRuby, Kafka, Kafka Streams, SQL Server, Kubernetes, AWS, Terraform, CircleCI, Ansible, Datadog

2005-2015

2015 Timehop

- Rewrote a critical data pipeline using stream processing to reduce latency and improve reliability
- Designed and implemented:
 - A sophisticated integration with Twilio for SMS-based signup
 - A tool for quickly processing billions of records
- Tech: Go (Golang), AWS, Redis, DynamoDB, Kinesis

2014 Thinkful

- Designed and implemented an event-driven system to automate Stripe subscription management
- Tech: Python, Django

2013–2014 CTO SFX Entertainment

- Led the design and implementation of an ambitious new-from-the-ground-up streaming music platform
 - With multiple teams: platform, Web, iOS, Android
- Recruited key team members
- Tech: Clojure, REST APIs, AWS

2005-2013 Arc90

- Wore many hats: developer, architect, tech lead, director, partner
- Worked with teams to design, build, and maintain sophisticated software platforms, including:
 - A Web/SOA insurance platform covering all key aspects of policy origination and management
 - o A Web-based search engine and reference platform for engineers
 - A Web API at the heart of a new-from-the-ground-up news distribution platform for Reuters
- Conducted technical audits of clients' acquisition targets
- Helped manage the business
- Managed client relationships
- Invested much time and effort in recruiting and retaining exceptional team members
- Started practice of regular company-wide code review
- Tech: <u>ColdFusion</u>, Groovy, Java, Python, <u>XQuery</u>, <u>XSLT</u>, <u>XSD</u>, <u>Relax NG</u>, <u>eXist</u>, <u>MarkLogic</u>, MongoDB, SQL Server, AWS

1997-2005

2001-2004 ADP

- Refactored, enhanced, and maintained a sophisticated application for producing custom financial documents for on-demand printing
- Tech: Microsoft SQL Server, ColdFusion, XSLT, XSL-FO

2001 register.com

- Team lead position for large high-traffic auction site
- Responsibilities included designing, implementing, and maintaining features; reengineering site technology and architecture
- Created new internal tools and development procedures
- Tech: ColdFusion

2000 RewardsPlus

- Maintained and enhanced a large-scale online employee benefits enrollment system for diverse clients with diverse needs
- Tech: ColdFusion

1998–2000 Words In Progress

- Developed requirements and specifications for high traffic websites directly with clients; crafted application architecture and database design
- Maintained one of the earliest major e-commerce Websites for T-Mobile
- Tech: Microsoft Access, ColdFusion, HomeSite

1998 Ideal Computer Strategies

- Worked with teams of designers, coders, and project managers to concurrently develop and deploy client websites with basic dynamic features
- Tech: Microsoft Access, ColdFusion, HomeSite

1997–1998 PCC Internet Design

- Founded and managed a small Web design shop in Baltimore, MD providing full-service Web design and development to small businesses in the area
- Tech: Windows Notepad, HTML

Output

Speaking

- (Architecture) Diagrams as Data Clojure/conj (2019)
- <u>Set your data free with model-based architecture diagramming</u> Write the Docs Portland (2020)
- <u>Concurrency via Communication Large and Small</u> Bay Area Clojure Meetup (2018)
- <u>Large Nested JSON with Spec: A Comedy of Errors</u> Bay Area Clojure Meetup (2018)
- Specifying Other People's Data Structures with Spec Clojure/nyc (2018)
- Stream Data Processing with Kinesis and Go at Timehop GolangNYC (2015)
- The impedance mismatch of Web Microframeworks PyGrunn (2014)

Writing

- A discussion with my CEO on the value of code in the LLM era (June 2025)
- Some of my favorite resources on software design and development (2021)
- Conference Highlights: Write the Docs Portland 2019 (2019)
- A collection of resources for learning stream processing (2014–2017)
- Stack Overflow (2008–)

Code

- I'm currently working on a side project: <u>a Web app</u> to help community organizers create digital calendars for their community programs
- In 2021 I built and launched the Web app ny.vax.help to help people get appointments for COVID-19 vaccines in New York State (repo)
- In 2018 I released <u>FC4</u>, an open-source framework for authoring software architecture diagrams

Canonical Version

The canonical version of this document is available at https://aviflax.dev/resume

Contact

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