

Zach Ross

zach@zachross.io

SUMMARY

Software engineer with five years at Amazon Music building financial data pipelines, APIs, and payment systems, now building agentic AI infrastructure across the full stack. Currently designing Model Context Protocol (MCP) architecture in Python (fastmcp, Ollama) that connects self-hosted LLM assistants to business systems while keeping sensitive customer and financial data protected.

EXPERIENCE

Software Engineer — Haselwood Group

Bremerton, WA | 2025–Present

- Design and build MCP architecture in Python with fastmcp for self-hosted agentic assistants running on Ollama.
- Develop MCP connectors that give assistants access to data from RDS pipelines, REST APIs, and auto industry systems.
- Architect connector boundaries so internal workflows can be automated without exposing sensitive PII or financial data.
- Own front-end and back-end web applications, APIs, data pipelines, and infrastructure end to end.

Software Development Engineer II — Amazon (FinTech, Amazon Music)

San Francisco, CA | 2022–2024

- Built and maintained APIs and microservices supporting Amazon Music financial operations.
- Developed Apache Spark (Scala) pipelines aggregating streaming and royalties data for accounting and vendor reporting.
- Built and maintained accounting ledger and payment disbursement systems for royalty payouts to labels and publishers.

Software Development Engineer I — Amazon (Music Royalties)

San Francisco, CA | 2019–2022

- Built AWS EMR and Apache Spark (Scala) data pipelines to calculate music royalties.
- Automated publisher reporting and accruals with EMR/Spark pipelines, reducing invalid-report contacts from ~100 per month to fewer than 1.
- Generated usage and accounting reports for royalty reporting and financial accounting.

Amazon Technical Academy — Amazon

Seattle, WA | 2017–2018

- Completed Amazon's internal software engineering training program, leading to a Software Development Engineer role.

PROJECTS

Postil — Open-Source LLM Chat Interface

Personal Project | 2026

- Building a model-agnostic chat UI with inline threaded replies to specific parts of a response and conversation forking; works with Claude or local models via Ollama. MIT-licensed.

Minimum-Revenue Contract Accrual Automation — Amazon

Amazon Music FinTech

- Built a web platform on AWS Lambda and API Gateway to automate minimum-revenue contract accruals; adopted company-wide, including by Prime Video and Podcasts. Saved ~10 hours per accountant per week.

SKILLS

AI & Agentic Systems: Model Context Protocol (MCP), fastmcp, Ollama, self-hosted LLM assistants

Languages: Python, Scala, Java, SQL, JavaScript/TypeScript

Data & Databases: Apache Spark, AWS EMR, MySQL, DynamoDB, RDS

Cloud & Infrastructure: AWS (Lambda, EC2, API Gateway, DynamoDB, RDS, CloudFormation), Unix, Git

Architecture: REST APIs, microservices, data pipelines, full-stack web development

ADDITIONAL EXPERIENCE

Prime Video Catalog Specialist (German) — Amazon

Seattle, WA | 2014–2017

Repair Technician — Apple Retail

Tacoma, WA | 2011–2014

EDUCATION & LANGUAGES

Pacific Lutheran University

Tacoma, WA | 2014

B.A. German; B.A. History; Minor in Hispanic Studies

Languages: German (fluent), Spanish (conversational)