Tobi Lehman

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Senior Software Engineer - Distributed Systems & Infrastructure

Senior Software Engineer with 9+ years of expertise in Go, Java, Python, Ruby, and network tools development. Led development of infrastructure plan runner, achieving 30% memory optimization within 3 months. Architected internal tools for network access and reproducible builds, driving operational efficiency.

WORK EXPERIENCE

Workday Inc. — 10/2024 - 01/2025
Senior Software Engineer · Contractor — Beaverton, OR

Designed and wrote load-bearing network tools and reproducible build tools inside Workday. Leveraged Go's ability to cross-compile for multiple architectures and operating systems, delivered tools that reduced the time it takes developers to update their tools by 75%

(Position eliminated during organizational restructuring)

- Led end-to-end development of SOCKS4/5 proxy tunneling feature, including requirements gathering, design, Go implementation, testing, and deployment through a CI/CD pipeline.
- Reduced time it takes for developers to update their tools by 75% within 3 months
- Rewrote the cleanroom build tool MVP in Go, reducing update time by 80% within 1 month
- Applied GitOps approach to automate the build and release of new versions of the internal tools I built.

Puppet by Perforce — 08/2023 - 10/2024
Senior Software Engineer · Full-time — Portland, OR

Lead the maintenance and modernization efforts for Puppet Enterprise configuration management and automation platform for IT infrastructure.

- Extracted JRuby Plan Runner from Clojure codebase in PE (Puppet Enterprise), built a new CRuby Plan Runner with an HTTP interface. Reduced PE mem usage by 30% within 2 months.
- Led full-cycle modernization of legacy C++ codebase, implementing coding standards and expanding test coverage through unit, integration, and regression tests.
- Built and managed enterprise CI/CD infrastructure with Jenkins using a GitOps approach

Apple — 05/2023 - 08/2023
Senior Software Engineer · Contractor — Remote

Modernized the Apple backend services to use HTTP2 and reduced bandwidth usage by 20% within 3 months

- Led full-cycle development of Java adapters for ServiceTalk™ library, improving iTunes backend performance with HTTP2 implementation, reducing bandwidth by 20% within 3 months
- Developed and maintained Java-based RPC handlers for Apache Kafka message queues, following enterprise coding standards and SCM practices.

SUSE LLC — 03/2022 - 05/2023
Staff Software Engineer · Full-time — Remote

Lead the product, architectural and engineering decisions for a hardware-accelerator Kubernetes operator and drove it to the finish line. Lead meetings with customers and stakehołdlers to inform new iterations of the product. Worked mostly in Golang.

(Position eliminated during organizational restructuring)

- Architected and shipped a Kubernetes operator in Go that added PCI passthrough to VMs. Delivered to customers. Lead follow-up meetings, got feedback, iterated on the feature.

- Developed user interface for PCI device discovery and VM configuration, following test-driven development practices and iterative feedback cycles.

Amazon   08/2018 - 03/2022
Software Development Engineer · Full-time   Seattle, WA / Portland, OR

Lead and owned the Teleoperations application for Amazon Scout delivery robots on the Amazon Scout team. Prior to that I worked at AWS Elemental on the Elemental Live and the Elemental Link products.

- Led development of Amazon Scout's telemonitoring system with microservices architecture running on AWS, achieving zero robot crashes within 6 months through robust safety features.
- Contributed to a unified multi-input sensor fusion model within 6 months, reducing robot telemonitoring reliance through advanced machine learning.
- Developed TypeScript React components for the telemonitoring application, establishing coding standards and implementing comprehensive testing with the simulation team.
- Shipped network recovery for AWS Elemental Link within 3 months, leveraging Python and HTML/JS to improve system reliability.
- Debugged memory leaks in Statmux UI, a data visualization application for fixed-bandwidth video streams, written in Ruby on Rails, Angular.JS
- Shipped network recovery for AWS Elemental Link within 3 months, leveraging Python and HTML/JS to improve system reliability.
- Used SageMaker to explore ML models for Right Sizing EC2 instances for AWS Elemental MediaLive video transcoding jobs.
- Developed new Platform API service in Golang to facilitate major OS upgrade.
- Built a WinForms C# .NET app to control a Docker container on Windows for the drivers. The container ran a proprietary video encoding engine to process the robot's video stream.

FlightStats   08/2017 - 07/2018
Software Engineer · Full-time   Portland, OR

- Developed high-throughput, highly concurrent Java processing pipelines for real-time flight data coming in ADS-B format.
- Used Apache Spark for EDA (Exploratory Data Analysis) on ADS-B flight data stored across multiple regions.
- Reduced manual data entry time from 2 days to 15 minutes by implementing a SQL JOIN equivalent for 4 NoSQL databases using Java/Clojure.

Goldstar Events, Inc.   09/2012 - 07/2017
Software Engineer · Full-time   Portland, OR

Maintained and scaled a Ruby on Rails application. Improved MySQL performance, built Redis caching layer. Helped evolve the monolith application in a more Service-Oriented Architecture direction. Migrated services to AWS.

- Did full-stack Ruby on Rails and React development for the goldstar.com application.
- Dockerized the main Ruby on Rails application, using docker-compose to orchestrate the MySQL database, cache service and main application containers.

EDUCATION

Bachelor of Science in Mathematics
Portland State University   Portland, OR

CERTIFICATIONS

Machine Learning Certificate   10/2016 - 02/2017
University of Washington, Coursera

AWARDS & SCHOLARSHIPS

2011 Putnam Mathematical Competition   12/2011