

Brian Ollenberger

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SUMMARY

Software engineering leader with 20 years of experience designing and building distributed systems, with recent focus on AI/ML infrastructure at Google and Meta.

Track record of founding and shipping products: launched Google Secure LDAP from scratch to tens of thousands of enterprise customers; built TPU provisioning infrastructure serving every major AI lab across 4 continents.

Deep systems background spanning kernel development, distributed consensus, large-scale data processing, and network protocols, combined with practical experience leading teams of 6–9 engineers.

SKILLS

Distributed systems: consensus protocols, replication, sharding, CRDTs, distributed hash tables, long-running orchestration, and asynchronous provisioning workflows.

ML infrastructure: model metadata management, training and serving pipeline integration, model deployment and canarying, AI accelerator provisioning.

Leadership: mentorship, design and code review, cross-team project planning, negotiating conflicting requirements across organizations.

Languages: Java, Go, Python, C, C++, Erlang, and others.

Protocols: gRPC/Protobuf, Thrift, HTTP, TLS, LDAP, OAuth, DNS.

EXPERIENCE

Coinbase – Prime Broker

September 2024 – Present

Staff Software Engineer

- Lead a team of 8 engineers owning federated product and infrastructure for Institutional APIs and administration tools serving thousands of customers, including every major crypto ETF, handling approximately 1 billion requests per month.
- Identified and drove consolidation of duplicated Institutional FIX trading infrastructure owned by a neighboring team, over initial resistance from stakeholders who preferred independent systems. Addressed concerns by designing multi-tenant configuration support, resulting in a simpler system with fewer resources and half the maintenance toil.
- Drove API standards and initiatives across 12 subteams, establishing consistency for institutional-facing services.
- Designed and built a novel indexing system for cross-organization financial data.
- Expanded connectivity options for institutional customers across REST, FIX, and PrivateLink. Automated all certificate lifecycle management, eliminating manual cost and error.
- Migrated administration workflows from a bespoke solution to a company-wide standard, simultaneously resolving maintenance cost and critical security requirements.

Google – Cloud TPU

April 2022 – September 2024

Senior Software Engineer

- Led a team of 9 engineers building provisioning infrastructure for TPU AI accelerators across dozens of clusters of ~1,000 nodes each, globally distributed across 4 continents, serving hundreds of customers including every major AI lab.
- Partnered with compute, runtime, and product teams to deliver functional requirements for external product launches, including new TPU generations.
- Identified that the existing framework for long-running asynchronous provisioning operations was a systemic drag on development velocity, requiring extensive manual change management and causing frequent backward compatibility errors. Made the case for a replacement to the original framework's authors, who became meaningful collaborators. The resulting transpilation framework in Go doubled development productivity in half the code.
- Owned project priorities, mentored new team members, and reviewed design and code across the team.

Meta – ML Hub

October 2019 – April 2022

Senior Software Engineer

- Refactored the shared ML model metadata store, unifying disparate training and serving frameworks into a single source of truth for thousands of models across trust and safety, revenue, and product organizations. Orchestrated complex multi-team data migrations, schema changes, backfills, and indexing.
- Led development of a common model lifecycle API for deployment, canarying, and rollback across continuously deployed models,

reducing deployment complexity and improving model iteration velocity organization-wide.

- Built end-to-end model monitoring: UI surfaces, out-of-the-box metrics, and declarative metrics APIs, giving ML engineers visibility into model health from training through production.
- Led organization-wide hiring efforts, developing process and onboarding pipelines for new and prospective team members.

Google – Secure LDAP

October 2013 – October 2019

Senior Software Engineer

- Founded, developed, and launched Google Secure LDAP, a managed LDAP service built on Google Cloud Identity.
- Grew the team from zero to 6 engineers plus PM, QA, and UX. Coordinated across organizations to clear technical and organizational roadblocks.
- Launched to thousands of companies in the first three months; the product serves tens of thousands of companies as of 2023.
- Partnered directly with customers before and after launch to identify use cases, close product gaps, and optimize performance.
- Drove launch reviews across security, quality, and production readiness.
- Technologies: Java, Go, Spanner, Protocol Buffers, Stubby, Guice, Flume.

Optimizely – Analytics Backend

January 2013 – October 2013

Software Engineering Lead

- Led the backend team (6 engineers) building the analytics system powering Optimizely, processing over 2 million events per minute at peak and doubling every 6 months.
- Implemented a streaming analytics backend using HyperLogLog probabilistic counting, a Chord distributed hash table, quorum-based replication, and CRDTs.
- Developed new streaming methodologies for analyzing A/B test results and statistical significance of revenue lift.
- Technologies: Python, Node, MongoDB, Redis, HBase, Java, AWS.

Triplt – Backend and Web

October 2009 – January 2013

Lead Software Architect

- Led a team of 8 engineers responsible for backend, APIs, and web application development.
- Integrated with Sabre flight booking system for real-time price monitoring.
- Invented and patented an algorithm to deduplicate travel itinerary data (see Patents below).
- Developed integrations with Google Apps, OpenID providers, Zendesk, and Payflow payments.
- Technologies: PHP, Python, Ruby, Java, Erlang, MySQL, Memcache, Redis, OAuth.

Hewlett-Packard – Global File System

June 2008 – May 2009

Software Engineer

- Principal developer of the Opsware Global File System, providing a single file system view of an entire data center.
- Solaris kernel module development for the file system driver, including debugging with MDB and DTrace, and post-mortem kernel core analysis.
- Developed native Ruby, PHP, and Perl bindings for the HP Server Automation API.

EARLIER EXPERIENCE

Hewlett-Packard / Opsware – Software Engineer

Data center visualization and scanning infrastructure. Developed APIs for application-specific scanning modules. Presented at HP TechCon.

University of Northern British Columbia – CS Researcher

NSERC research award. Developed a distributed MPI deadlock detector; published at IASTED Parallel and Distributed Computing Conference.

PATENTS AND PROJECTS

Method and system for detecting duplicate travel path information – Patent granted 2016. A novel sequence alignment technique to efficiently reconcile duplicate and near-duplicate travel path information in itineraries.

Distributed Database in Erlang – A self-organizing distributed database featuring Chord-based routing, three-phase-commit transactions, sharded storage with configurable replication, distributed hot code deployment, and a streaming interface.

EDUCATION

University of Northern British Columbia, Prince George, BC, Canada

Bachelor of Science in Computer Science, Minor in Mathematics