Eytan Brodsky

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Summary

Results-driven, multifaceted software engineer with extensive experience in backend systems, scalable architecture, performance optimization, cloud solutions and distributed systems.

Over 6 years of experience developing and deploying secure, reliable and efficient systems across diverse fields such as IoT, computer vision, cloud cost optimization, trading systems, backend APIs and distributed systems.

Over 3 years of experience as a senior technical contributor, leading cross-functional initiatives from concept to deployment. Experienced mentoring team members, facilitating clear cross-team communication, guiding project architecture decisions and driving fast-paced project delivery.

Skills

Languages: Rust, C/C++, Go, Python, SQL, JavaScript, Typescript, Java, MATLAB, Bash

Cloud & Infrastructure: AWS, Docker, Kubernetes, Terraform, PostgreSQL, MongoDB, Redis, Kafka, OTEL

Frameworks & Tools: Tokio, Axum, Flask, FastAPI, Next.js, Vue.js

Specializations: Backend Development, API Design, Performance Optimization, Async & Concurrency

Certifications: AWS Certified Solutions Architect (Associate), Intel Innovation Master

Work Experience

Downstream - Senior Backend Engineer — Portland, Oregon

</> **Rust** || **Python** || **AWS** || **MongoDB** || **Docker** || **OTEL** || **Terraform** || **Redis** || **Kafka** — *Nov 2023 – May 2025*

- Owned and led development on Rust backend codebase for Downstream's custom content management system.
- Redesigned backend architecture to allow for distributed operation of API containers in AWS ECS.
- Designed and implemented key security features for a comprehensive security assessment of the CMS.
- Revamped CI/CD architecture, version control workflows and technical documentation across the front-end and back-end.
- Spearheaded adoption of observability infrastructure through New Relic OTEL tracing, significantly improving response and error resolution times.
- Optimized MongoDB data model and query design, resulting in 30% lower execution times for high-volume endpoints.
- Leveraged Kafka to build a resilient event-driven architecture, effectively decoupling services and enabling seamless scalability for high-throughput operations.
- Coordinated cloud infrastructure deployments and version upgrades across multiple client environments.
- Mentored junior engineers in Rust development and testing patterns, cultivating on-the-job learning.

Self-Employed - Software Consultant — Buenos Aires, Argentina

</> **GitHub Actions** || **Kafka** || **Python** || **Rust** || **Go** || **C++** || **PostgreSQL** || **Linux** || **Git** — *Oct 2022 – Feb 2024*

- Delivered custom software solutions for clients, specializing in backend development and cloud infrastructure.
- Architected and implemented scalable web applications in Python, Go and Rust, hosted mainly on AWS.
- Optimized existing systems and databases to improve performance, reduce costs, and enhance reliability.
- Provided technical consulting on cloud optimization strategies, infrastructure modernization and development practices.
- Advised clients throughout full project lifecycle from initial consultation through deployment.

Intel - Lead Cloud Optimization Engineer, Emerging Growth Incubator — Hillsboro, Oregon

</> **Rust** || **Python** || **AWS** || **PostgreSQL** || **Flask** || **Docker** || **Kubernetes** || **Terraform** — *Jul 2020 – Aug 2022*

- Led development of an Intel Capital startup product for managing and optimizing cloud resources in Rust.
- Developed a declarative language similar to Terraform, enabling users to enforce cost constraints and governance rules across cloud environments.
- Collaborated directly with enterprise clients to identify operational challenges and prioritize feature development.
- Orchestrated monthly product releases, presenting new capabilities to investors and stakeholders.
- Delivered measurable cost reductions for Intel's internal AWS operations and external client deployments.
- Authored technical blog posts, user documentation, and developer guides to drive product adoption.
- Managed hybrid infrastructure across on-prem and AWS environments for development and production systems.

Oregon State University - Graduate Teaching Assistant — Corvallis, Oregon

Senior Capstone I II III || **Operating Systems I II** || **Prog. Lang. Fundamentals** — *Sep 2019 – Mar 2022*

- Facilitated weekly office hours, offering help to students and answering questions.
- Managed 12 student teams, each having 3-6 members.
- Resolved conflicts between teams and clients and facilitated collaboration.
- Oversaw weekly meetings with groups and clients, evaluating progress and grading work.

Intel - Software Engineer, Internet of Things Group — Hillsboro, Oregon

</> **C++ ‖ Python ‖ Cython ‖ Docker ‖ MATLAB ‖ Graphite ‖ Grafana** — *Jun 2018 – Sep 2019*

- Built and showcased computer vision demos in Python and C++ for industrial IoT applications.
- Built a neural network performance analysis tool, providing decision-driving datapoints and metrics.
- Worked on lower-level optimizations and tests in C++ for the neural network optimizer, identifying and removing performance bottlenecks.
- Developed PoCs and contributed to several papers on 802.11ax and time-sensitive networking at Intel Labs.

Intel - System Administration Intern, Data Center Group — Hillsboro, Oregon

</> **Bash ‖ Python ‖ Linux ‖ Git ‖ Server Maintenance** — *Jun 2017 – Sep 2017*

- Maintained several thousand servers in one of Intel's main data centers.
- Collaborated with server vendors to solve hardware issues and minimize downtime.
- Configured BIOS, network and hardware settings and performed standard maintenance on data center hardware.
- Streamlined data center operations with Python and Bash scripts for the team.

Education

Oregon State University — Corvallis, Oregon

M.S. in Computer Science — Jun 2023

B.S. in Computer Science — Jun 2019

Minor in Mathematics — Jun 2019

Projects

Crypto Exchange API

- A Rust project that interacts with the Coinbase and Kraken crypto exchanges.
- Provides a Rust API to interact with the exchanges' REST API and websocket endpoints.
- Provides a declarative language for monitoring specific coin pairs and defining triggers and actions based on real-time market data.
- Implemented micro-optimizations to improve hot-path efficiency and minimize latency.

DNS Resolver

- Implemented a recursive DNS resolver in Rust.
- Followed the specifications in RFC 1035 to interact with DNS servers.
- Added a packet information visualization tool similar to hexdump to more easily see information contained in each DNS packet.

Convex Optimization Heuristic for Priority and Time Constrained Packet Scheduling

- Implemented a MATLAB simulation of a single hop star network to simulate packet switching between virtual machines with a unique scheduling technique to improve efficiency with high and low priority workloads.