# Owen Krause

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#### EDUCATION

## **Oregon State University**

Corvallis, OR

Bachelor of Science in Computer Science, Minor in Mathematics

Sept. 2023 - Jun. 2027

#### Experience

#### NAVI Protocol Labs

Jun. 2025 – Sept. 2025

Fullstack Engineer Intern

San Francisco, CA / Remote

- Built real time portfolio analytics system aggregating data from 3 external APIs, serving 10,000+ daily active users with sub-200ms average response times
- Developed SDK functions for dollar-cost averaging feature enabling automated recurring investments with configurable schedules and amounts
- Integrated additional liquidity sources into price aggregator, expanding route optimization to reduce average execution cost

Sui Foundation Dec. 2024 – Mar. 2025

Software Engineer (Contract)

Remote

- Awarded \$10,000 grant to build production trading platform adopted by developers as reference implementation
- Built real-time trading UI with live candlestick charts, order book visualization, and efficient data streams
- Implemented complex React state management for multi panel trading interface with sub-second data updates

BeaverHacks Oct. 2023 – Present

Vice President

Corvallis, OR

- Organized the largest Hackathon in Oregon, increasing participants from 50 to 300 across over 5 universities
- Led team of 10 developers building event management platform serving 10,000+ visitors with no downtime
- Managed full development lifecycle: sprint planning, code review, CI/CD pipeline, and production deployment

### Projects

# NVMe Key-Value Storage Engine | C, NVMe, SPDK, Samsung OpenMPDK

Sept. 2025 – Present

- Building high-performance storage engine leveraging NVMe Key-Value Command Set to eliminate block-storage translation overhead and achieve 2-3x performance improvements over traditional systems
- Implementing SNIA-compliant API with a synchronous I/O operations, memory pooling, and zero-copy data paths using SPDK for sub  $100\mu s$  latency targets
- Designing user-space library integrating Samsung OpenMPDK stack for direct NVMe SSD communication with 100,000+ ops/second throughput

## Real-Time Product Monitoring Platform | JavaScript, Node.js, MongoDB, Axios Apr. 2022 - Aug. 2023

- $\bullet$  Built distributed monitoring system tracking inventory changes across multiple e-commerce sites, processing 10,000+ products with sub-minute polling
- $\bullet$  Developed asynchronous polling architecture with proxy rotation, cache by passes, and anti-bot workarounds, achieving 99% uptime monitoring various e-commerce websites
- Scaled platform to 250+ paying subscribers generating \$5k MRR while using the infrastructure to grow personal e-commerce operation to \$500,000+ revenue

# Hackathon Management System | Next.js, TypeScript, PostgreSQL, Prisma, Vercel

Oct. 2023 – Present

- Architected production grade monorepo with 3 deployed applications serving 500+ participants, judges, and sponsors
- Built shared package system for authentication, database schema, UI components, and cloud file storage used across all platform applications
- Implemented comprehensive role-based access control managing permissions for participants, judges, sponsors, and administrators with real-time registration and judging workflows

### TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Python, C, Golang, SQL

Technologies / Frameworks: Node.js, Express, REST APIs, GraphQL, WebSocket, Microservices

Databases: PostgreSQL, MongoDB, Redis, SQL

Cloud & DevOps: AWS, Google Cloud, Docker, Git, GitHub, CI/CD, Vercel