

# Owen Hochwald

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## EDUCATION

### University of British Columbia

B.S. in Computer Science, GPA: 4.0/4.0, Dean's Scholar

Vancouver, BC

Expected May 2027

- Coursework: Networking, Operating Systems, Data structures, Algorithms, Databases, Object-Oriented programming

## PROFESSIONAL EXPERIENCE

### Software Developer

UBC Launch Pad

Sep 2025 – Dec 2025

Vancouver, Canada

- Built cloud gaming platform with AWS TypeScript CDK managing 1000+ concurrent EC2 instances for browser-based gameplay without downloads.
- Used Next.js, DynamoDB, and OAuth2 to build a low-latency full-stack app with a real-time WebSocket streaming service.
- Led weekly development meetings and code reviews for team of 15 developers in Github environment.
- Built automated CI/CD pipeline with GitHub Actions deploying Docker containers to ECS, enabling continuous deployment.

### Software Engineer Intern

Fairphrase

Jun 2025 – Dec 2025

US Remote

- Used Kotlin Spring Boot to build full-stack bias detection REST API and React/TypeScript frontend, processing news articles with ML classification in Gitlab development environment.
- Developed Chrome extension with JavaScript integrating Auth0 authentication and real-time bias classification analysis overlays.
- Engineered production infrastructure with Docker and Nginx, containerizing 12+ microservices for deployment.
- Built observability stack with Grafana and Loki for distributed tracing across microservices, with version control using Git.

### Full Stack Intern

UBC Visual Cognition Lab

Apr 2025 – Dec 2025

Vancouver, Canada

- Refactored a 30K+ line Express.js codebase to TypeScript, enhancing code maintainability across 50+ API endpoints.
- Reduced onboarding time from 2 weeks to 1 week by engineering RAG chatbot with semantic search over research documents.
- Created custom bug reporting workflow with React and Redux, automating issue tracking for research team.
- Designed MongoDB schemas and Express API routes following MVC architecture for experimental data processing.

### Backend Machine Learning Engineer Intern

Insomniac Design, Inc.

Jun 2023 – Jul 2023

Washington, D.C.

- Used Python & FastAPI to achieve 89% classification accuracy in social media sentiment analysis by fine-tuning Lbl2Vec model.

## ENGINEERING PORTFOLIO

### Volt : High-Performance HTTP Client & Load Tester

- Built concurrent HTTP load tester with Go reaching 125+ GitHub stars, achieving 3.9x faster throughput than Postman using goroutines and multi-threading.
- Added SQLite persistence with schema migrations for request history and collections.
- Wrote comprehensive Go unit tests, integration tests with test containers, and load benchmarks maintaining 85% code coverage.
- Automated cross-platform binary distribution via GitHub Actions for one-command installation.

### RecMind : Distributed Recommendation Engine

- Built distributed recommendation engine with Go backend and Python ML microservice for semantic search over personal knowledge bases.
- Designed pub/sub architecture with RabbitMQ for idempotent, reliable transactions between distributed microservices.
- Achieved p50 latency < 400ms for semantic search with Redis caching and Pinecone vector database.
- Built PostgreSQL schema with full-text search indexes integrating with frontend React.js dashboard.

### AdmitifyAI : College Admissions SaaS

- Used Next.js, Typescript to build full-stack SaaS platform with LLM recommendation engine reaching 1K users in first month.
- Led team of 5 developers through sprint planning and code reviews with Git and Github with a Jest unit testing suite.
- Designed Supabase, PostgreSQL schema with row-level security for isolated, JWT token user data access.