

ANDREW FAN

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EXPERIENCE

Databricks

May 2026 – Aug 2026

Software Engineer Intern | AI Business Intelligence

Vancouver, BC

- **Led the production launch of multi-widget editing** for AI/BI Dashboards, expanding the editor from single-object operations to bulk selection, movement, deletion, copy/paste, and undo/redo
- **Designed browser-to-database architecture** across React/MobX, GraphQL, Scala/gRPC, and MySQL, using atomic batch operations while preserving concurrency safety, object identity, and backward compatibility
- **Safely migrated production paths processing 116K+ daily requests** using feature flags, layered full-stack testing, rollout monitoring, and systematic hardening of complex canvas interactions

Amazon Web Services

Sep 2025 – Apr 2026

Software Development Engineer Intern | DynamoDB Storage Node

Seattle, WA

- **Eliminated a deployment blind spot** by shipping end-to-end failover observability, testing, and release gating across three packages—making consensus timing regressions detectable before production for the first time
- **Exposed the true customer-visible outage window** by instrumenting a distributed storage engine's leader-election path with thread-safe failover tracking and per-failure-mode metrics
- **Enabled realistic cross-AZ fault injection in test clusters** via a port-scoped Linux tc/netem hierarchy that isolates simulated latency to replication traffic while preserving control-plane connectivity

Robinhood Markets

May 2025 – Aug 2025

Software Engineer Intern | Storage Infrastructure

Toronto, ON

- **Slashed database incident triage time by 90%** by building Robinhood's first production Model Context Protocol (MCP) servers with an extensible framework that auto-discovers 120+ tools across environments
- **Expanded schema audit coverage from 3% to 100%** by developing a PR check powered by a custom AI agent that leverages MCP tools to fetch real-time diagnostics and automatically label, annotate, and block risky changes
- **Reduced storage ticket churn by 40%** with a Slack-native Storage Assistant Bot that provides self-serve access to LLM orchestrators using MCP tools—delivering on-demand database diagnostics in seconds

Genovus Energy

May 2024 – Apr 2025

Data Engineer Intern | Value Chain Optimization

Calgary, AB

- **Supported \$300+ million in monthly purchasing decisions** by building a Streamlit analytics platform backed by PostgreSQL and Databricks for price optimization and site-level analysis
- **Processed 500 million rows of data weekly** by building Apache Spark pipelines that cleaned, normalized, and integrated market and operational data into Databricks data lakes
- **Saved 10+ hours weekly** by automating crude-network optimization with Dijkstra's algorithm while enforcing pipeline constraints and volume capacities

PROJECTS

Weave | weaveapp.ca | TypeScript, Next.js, Go

- Conceptualized and built a smart group scheduling app that helps 500+ users coordinate availability through an interactive grid interface, simplifying meeting planning and enhancing user collaboration

EDUCATION

University of British Columbia

Expected Completion: May 2027

Bachelor's Degree in Computer Science and Business

Vancouver, BC

- **GPA: 3.9/4.0**; Dean's Honour Roll; Trek Scholar (Top 5%)

TECHNICAL SKILLS

Languages: Python, Go, Java, C++, SQL, TypeScript

Frontend & APIs: React, MobX, GraphQL, gRPC

Systems & Infrastructure: Kubernetes, Docker, Terraform, Bazel, Linux

Cloud & Storage: AWS, Google Cloud, Databricks, DynamoDB, PostgreSQL, MySQL

Data & ML: Apache Spark, Pandas, PyTorch, TensorFlow