

Andy Guo

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EDUCATION

University of British Columbia

Combined Major in Business and Computer Science, BComm

Vancouver, BC

May 2028

PROJECTS

"Grill Me" AI-Powered Mock Interview Platform | *Next.js, Cloudflare Workers, Supabase, Groq* October 2025 – Present

- Serving **200+** waitlist users through full-stack AI interview platform, achieving **<200ms global response times** by implementing serverless architecture on Cloudflare Workers with edge compute.
- Achieved **98% resume parsing accuracy** using structured LLM outputs with custom validation logic, enabling automated candidate scoring across technical skills, experience, and cultural fit.
- Enabled real-time voice interviews with streaming responses by integrating Groq API for low-latency inference and Supabase for audio storage, handling concurrent interview sessions.

Pay me Back! iOS Expense Splitter | *Swift, FastAPI, SQLite*

September 2025 – Present

- Engineered **graph-based balance calculator** converting expense ledger into pairwise debts via $O(E^*P)$ algorithm with epsilon-threshold rounding (0.01), processing arbitrary n-way splits across group members.
- Architected 3NF database schema with **6 tables and compound primary keys**, implementing idempotent settlement requests through (group_id, user_id) constraints and CASCADE foreign keys for referential integrity.
- Optimized iOS state management using **dictionary-indexed caching** reducing expense lookups from $O(n)$ array scans to $O(1)$, synchronized via async/await patterns across 13 FastAPI endpoints.

Nina AI (Cal Hacks 2025) | *React Native, FastAPI, SQLite, Groq*

October 2025

- Reduced transcription latency by **40%** by integrating Groq Whisper v3 Turbo API, achieving **2-second end-to-end latency** for voice note search and transcription pipeline.
- Architected **multi-tenant search system** with 3 ranking strategies (BM25 FTS5, LLM semantic scoring, conversational AI) serving **11 async API endpoints**, using SQLite virtual tables with user-isolated indexes for concurrent query processing.
- Implemented production-grade LLM reliability patterns: structured JSON outputs, token budget optimization (120 tokens for TTS, 2000 for search), and temperature tuning across 4 Groq model integrations.

LEADERSHIP

Motion UBC

Software Engineer

October 2025 – Present

Vancouver, BC

- Developing full-stack platform for United We Can nonprofit managing **600+ recycling collectors**, implementing driver scheduling and pickup tracking features using Next.js, React Native, and Supabase PostgreSQL.
- Built real-time data synchronization system enabling mobile app to reflect schedule updates with **<1 second latency**, handling concurrent updates from multiple users.

Google Developer Student Club (GDSC)

Outreach Coordinator

September 2025 – Present

University of British Columbia

- Coordinate technical workshops and events for student developer community, managing partnerships with tech companies and securing sponsorships for workshops on topics including cloud computing, mobile development, and AI/ML.

TECHNICAL SKILLS

Languages: Python, JavaScript, Swift, Java, C/C++, SQL, HTML/CSS

Frameworks & Libraries: React.js, React Native, Next.js, Node.js, FastAPI, Flask, Scikit-learn, Pandas

Tools & Databases: Git, Docker, PostgreSQL, SQLite, AWS, Figma, Unix Shell