

Alvin Cao

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github.com/AlvinCao88

Summary

Computer Science student with experience building scalable APIs, distributed systems, and production services. Proficient in Java, Python, JavaScript/TypeScript, and SQL with hands-on expertise in CI/CD pipelines, and Agile development. Seeking Summer 2026 co-op to deliver robust, maintainable enterprise solutions.

Experience

Software Developer Co-op Sept 2025 – Dec 2025

Buster Fetcher

- Architected automated stalled-job recovery system for BullMQ and Redis pipelines, **reducing failure rates by 30%** and improving throughput under high load conditions
- Led end-to-end development of secure email authorization feature, implementing IMAP/SMTP protocol validation and integrating authentication flows across backend services and UI configuration tools
- Expanded unit test coverage across critical invoice-processing pipelines (import, parsing, processing), **increasing code reliability and deployment confidence by 15%**

Software Developer Co-op May 2024 – Dec 2024

Cineplex Digital Media

Toronto, ON

- Deployed real-time Olympic medal tracking app to **100+ displays** nationwide, **increasing user engagement by 10%**
- Designed JSON-driven content pipelines reducing rendering inconsistencies and improving maintainability for cross-platform deployments in multiple locations
- Implemented feature enhancements and performance improvements for the LCBO retail app, helping drive a **30% increase in sales**; maintained and extended product customization for promotional campaigns.
- Maintained **48+ production applications** in Agile Scrum environment, owning feature development, debugging, and production deployments

Projects

Apache Superset Contribution | Data Visualization github.com/AlvinCao88/apache/superset/pull/35919

platform with over 70K Stars

- Extended support for the standard country code CCA2 in Superset's world map filter, improving compatibility with standard geographic datasets along with CCA3
- Pull request reviewed and accepted within 2 months and merged into **v6.0.0**

Fake:It - Mental health Coach | TensorFlow, Python github.com/AlvinCao88/Fake-It

- Built interactive AI system delivering real-time feedback on facial expressions and speech using React and TensorFlow
- Achieved 17th place out of 300+ participants and 80+ projects at Hack the Valley 8
- Integrated machine learning models for facial expression analysis and multiple APIs for enhanced personalization

Market Place App | Java, Android, Firebase github.com/AlvinCao88/MarketplaceApp

- Developed a native Android application enabling real-time order placement and fulfillment between vendors and clients.

Technical Skills

Languages: Java, Python, JavaScript, TypeScript, C, Bash, SQL

Frameworks and Database: Node.js, Express, BullMQ, React / React Native, Next.js, PostgreSQL, MongoDB

Tools & Practices: Git, Jira, Confluence, Agile Scrum, Maven, Docker, Jenkins, GitHub Actions, AWS S3, Nginx

Education

University of Toronto Sept 2022 – Present

- Honours Bachelor of Science, Computer Science Specialist
- Relevant Coursework: Data Structures, Algorithms, Operating Systems, Databases, Software Design
- Expected Graduation: December 2026