Troy Wu

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EDUCATION

University of British Columbia   Vancouver, BC
Bachelor of Computer Science and Business Co-op — GPA: 4.10/4.33   *Expected Graduation May 2027*
- Dean's Honour Roll, Trek Excellence Scholarship (Top 5%), Ranked 6/791 in UBC Sauder
- Courses: Data Structures and Algorithms(A+); Object-Oriented Programming(A+); Operating Systems(A-); Relational Databases(A); Program Design (A+); Computation Models(A+).

Tsinghua University   Beijing, China
School of Economics and Management — Exchange Term   *February 2025 - June 2025*

EXPERIENCE

Software Developer Intern   May 2024 - December 2024
Absolute Security   *Vancouver, BC*
- Designed & implemented **full-stack Chromebook security services** using **JavaScript/Java**, **Manifest V3**, enabling real-time monitoring of enterprise endpoint devices.
- Automated log exports for **1M+ devices** by building a continuous log retrieval tool in **Java/JavaScript**; boosted **QA efficiency & error detection speed by 30%**.
- **Redesigned and optimized log export interface** using **HTML/CSS/JavaScript**, accelerating QA log download workflows by **50%** and enhancing usability for non-technical teams.
- Collaborated with **10+ engineers & QA staff** to integrate & maintain software modules, **improving release cycle speed by 15%** and **reducing integration bugs on GitLab by 20%** through clear communication.
- Developed comprehensive **JUnit/Mocha** unit test suites with **100% code coverage**, ensuring reliability and maintainability of critical Chromebook services.
- Applied **agile development practices** using **Jira**, and contributed to deployment pipelines utilizing **Argo, Docker, and Kubernetes** to support scalable enterprise solutions.

PROJECTS

Basketbot - Produhacks 2024 Winner | *Python, OpenCV, PyAudio, VOSK Speech Recognition*   March 2024
- Winner of **ProduHacks** (30 teams, $400) by developing object detection automatic basketball scorekeeper.
- Integrated basketball detection through countour shape and colour detection with **OpenCV** image processing.
- Implemented **speech recognition** with **PyAudio** and **VOSK library** for scoreboard and clock voice controls.

Mindful Motion - HelloHacks 2023 Winner | *Python, OpenCV, Pandas, Flask, HTML/CSS*   September 2023
- Winner of **HelloHacks** (18 teams, $500) by developing motion detection rep counter and pose corrector.
- Integrated **91%** accuracy motion detection by utilizing **OpenCV Image Processing** Functions.
- Utilized **Pandas** library for writing data of motion events by recording timestamps and threshold value.
- Implemented a user-friendly web application and demo using **HTML, CSS**, **Python**, **Flask** and **Figma**.

Among Us Database | *SQL, OracleDB, Node.js, Express.js, Javascript*   November 2024
- Implemented a web application tracking multiplayer game events using **OracleDB, Node.js**, and **Express.js**.
- Designed a **20-table SQL relational database** schema modeling complex game interactions in "Among Us".
- Implemented advanced **SQL queries** including nested aggregation, division queries, and dynamic data retrieval.
- Developed **RESTful API** endpoints supporting comprehensive CRUD operations for game data management.

Blackjack Game | *Java, JUnit, JSON, Java Swing*   January 2023 – April 2023
- Designed and developed a functional blackjack game using **Java** and **object oriented programming** principles.
- Created a user-friendly interface using **Java Swing** allowing smooth user interaction with program.
- Utilized **JSON file format** to establish **Save/Load Functionalities** to store players data.
- Developed a comprehensive unit testing suite using **JUnit framework**, achieving 100% code coverage.

TECHNICAL SKILLS

Languages: Python, Java, Typescript, JavaScript, C++, SQL, React.js
Frameworks/Libraries: MongoDB, Chai, Mocha, Sinon, OpenCV, Flask, JUnit, JSON, OracleDB.
Developer Tools: Git, Gitlab, Jira, Studio3T, Docker, Github, WebStorm, VS Code, Visual Studio, IntelliJ