

Harry Chen

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Education

University of Calgary - *Calgary, Alberta* 2018 – 2023 (Expected)
• Combined B.Sc. in Computer Science and B.A. in Economics GPA: 3.99
• Courses: Algorithms, Relational Databases, Computer Networks, Object-Oriented Design

Employment

Arolytics | Software Developer Intern - Remote May 2021 – Aug 2021
• Developed features and fixed bugs for the backend REST API using Python and Flask.
• Added container-based integration testing for 13% of the backend using Docker and Pytest.
• Setup and wrote API documentation for over 60 endpoints using OpenAPI and Swagger UI.
• Created a streamlined process for developers to write MongoDB schema migrations.
• Increased code reusability through refactoring repetitive code into utility functions.

Mikata Health | Software Developer Intern (Part-time) - Remote Sept 2020 – Apr 2021
• Implemented a revamped design for the clinic-facing web application in React and Redux.
• Converted ~10% of the JavaScript frontend code to TypeScript for improved maintainability.

Mikata Health | Software Developer Intern (Full-time) - Remote May 2020 – Aug 2020
• Reduced developer time spent on customizing patient messages for clinics by developing a customization dashboard and API endpoints using NodeJS, PostgreSQL, and AWS Lambda.
• Created robust UI components for the patient web chat app using React and TypeScript.
• Improved clinic dashboard usability through building highly requested user features.
• Wrote backend unit tests using Jest and PostgreSQL database migrations using Knex.js.
• Used Scrum agile development for productivity through code reviews, sprints, and stand-ups.

Projects

Tank Royale - *Java, JavaFX*
• Programmed a top-down tank battle multiplayer game using object-oriented design principles.
• Implemented animation, collision detection, bullet ricochet, and game physics.

UCollab - *Python, Flask, SQL Alchemy, HTML, CSS, Bootstrap*
• Built a full-stack web application that provides a platform for interdisciplinary collaboration between students and faculty under a 24-hour time-constraint for Calgary Hacks 2020.
• Designed a sleek frontend with a message board, user authentication, and profile pages.

Element Crush - *Python, Pygame*
• Coded an engaging match three or more tiles desktop puzzle game with sound effects.

Sudoku Solver - *Java*
• Developed a program that solves any sudoku puzzle taken in as a text file.
• Implemented elimination techniques and a backtracking sudoku solving algorithm.

Skills

Languages: (*proficient*): Python, Java, JavaScript, TypeScript, HTML, CSS, SQL, (*familiar*): C++, C#, Haskell, ARM Assembly

Tools & Frameworks: React, Express, Flask, PostgreSQL, MongoDB, Git, Docker, Bash