# **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 readability and reduced technical debt through refactoring Python code.

Mikata Health | Software Developer Intern (Part-time) - Remote

Sept 2020 - Apr 2021

- Led the revamped design implementation for the clinic-facing web app 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

- Eliminated developer time spent on custom patient messages for clinics by developing a customization frontend and API backend using Node.js, PostgreSQL, and AWS Lambda.
- Created robust UI components for the patient chat web 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**

- Programmed a top-down tank battle game in Java with object-oriented design principles.
- Implemented animation, collision detection, bullet ricochet, and game physics with JavaFX.

#### **UCollab**

- Built a full-stack web app that provides a platform for collaboration between students and faculty under 24-hours for Calgary Hacks 2020, using Python, Flask, and SQL Alchemy.
- Designed a frontend with a dashboard, profiles, and login using HTML, CSS, and Bootstrap.

#### **Element Crush**

• Coded an engaging match three or more tiles desktop puzzle game with Python and Pygame.

#### Sudoku Solver

- Developed a Java program that solves any sudoku puzzle inputted 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