

# DAVID CHI

## COMPUTER SCIENCE

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## Skills

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

**Technologies:** NodeJS, React, Redux, Flask, MongoDB, Microsoft Detours, Elasticsearch

**Tools:** Git, Bash, Docker, Jekyll, Firebase

## Experience

### McAfee

Sept 2019 to Dec 2019

Software Developer

- Optimized the state management system of antivirus software, improving UI **response time** to real-time data by **30%**
- Implemented an API to store and fetch historical data using **C++** and **JavaScript**, leading to **60% faster load times**
- Added support for localization of the new antivirus software to enhance usability for users of different cultures
- Utilized Microsoft Detours in C++ to simulate failure scenarios for unit tests, increasing code coverage by 10%

### Ontario Institute for Cancer Research

Jan 2019 to May 2019

Applications Developer

- Implemented **NodeJS** modules to handle user authentication and actions from the Content Management System
- Developed scripts to automate continuous integration processes, leading to **30% faster project deployment**
- Built a centralized logging system using ELK, resulting in **100% faster resolution of errors** on deployed projects
- Developed interactive **React** components to enhance the showcase of cancer research for 10+ OICR Labs

### Facility Association

May 2018 to Aug 2018

Database Developer

- Implemented a relational database to store incidents reported under the ERM framework
- Developed a reporting form using the ActiveX framework to insert and update incident records using **SQL**
- Redesigned the process of reporting and reviewing incidents for risk analysis and management

## Projects

### Super Pac-Man (Java)

Mar 2019

- Developed a variation of the Pac-Man game that incorporates different special abilities to enhance the player
- Incorporated **Object Oriented Programming** practices and the **visitor design pattern** to handle collisions and interactions between entities and the environment
- Utilized the Java Swing library to provide a graphical user interface

### TravelSafe (JavaScript, Actions on Google)

Sept 2018

- Developed a **Google Assistant** app using Actions on Google to provide users with a discrete way to report crimes
- Utilized the Dialogflow API and **NodeJS** to understand user commands and provide appropriate responses
- Added feature to make calls to emergency services through the Twilio API using the MP3 file generated by the Google Cloud Text-to-Speech API

## Education

**University of Waterloo** - Candidate for BCS

Expected Graduation: 2022

**Courses:** OOP, Data Structures and Algorithms, Compilers, Operating Systems