

# DAVID CHI

## COMPUTER SCIENCE

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## Skills

**Languages:** JavaScript/TypeScript, Python, C++, C, Java, PHP, SQL, Bash

**Frameworks:** React, Redux, NodeJS, ExpressJS, ObjectionJS, Flask, NumPy

**Tools:** Docker, AWS, GCP, PostgreSQL, MongoDB, Presto, Elasticsearch, Heroku, Git

## Experience

**Facebook** – Video Infrastructure – Front End Engineer

Jan 2021 to Apr 2021

- Independently shipped full stack tool using **React** and **PHP** to monitor and analyze Facebook's video infrastructure test results, providing visual insights on infrastructure health and performance
- Built dashboard using **Presto** to display usage, efficiency, and reliability metrics of the monitoring tool to facilitate maintenance and track user behaviour
- Developed reusable graphing components for internal developer tools to visualize diagnostic data

**Tilr** – Full Stack Developer

Apr 2020 to Sep 2020

- Independently shipped data-visualization dashboard using **React**, NodeJS, and PostgreSQL, providing companies with workforce performance metrics
- Implemented scalable subsystems to send emails and push notifications using NodeJS, **GCP Pub/Sub** and **Cloud Functions**, targeting thousands of users daily
- Secured sensitive endpoints by building middleware to support role-based access control using **NodeJS**

**McAfee** – Software Developer

Sep 2019 to Dec 2019

- Optimized state management system of antivirus software, improving UI response time to real-time data by 30%
- Redesigned API for management of historical data using **C++** and NodeJS, leading to 60% faster load times
- Added support for localization of the new antivirus software to enhance usability for users of different cultures

**Ontario Institute for Cancer Research** – Applications Developer

Jan 2019 to May 2019

- Implemented user authentication for the Content Management System using **NodeJS** and OAuth 2.0
- Developed scripts to automate continuous integration processes, leading to 30% faster project deployment
- Built centralized logging system using **ELK stack**, resulting in 100% faster resolution of errors on deployed projects

**Facility Association** – Applications Developer

May 2018 to Aug 2018

- Engineered tool to maintain incident records using **SQL** and ActiveX, redesigning the risk management process

## Projects

**Super Pac-Man** – Java

Aug 2019

- Developed a Pac-Man game with special player abilities, incorporating **OOP** practices and the **visitor design pattern** to handle collisions and interactions between entities and the surrounding environment

**TravelSafe** – JavaScript, Actions on Google

Sep 2018

- Built a Google Assistant app using NodeJS and Firebase that makes calls to emergency services, providing users with a discrete way to report crimes

## Education

**University of Waterloo** - Candidate for BCS

Expected Graduation: 2022

**Courses:** OOP, Data Structures and Algorithms, Concurrency, OS, Compilers