SIMON LIU

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Professional Experience

Coursera

Mountain View, CA

Software Engineering Intern, Infrastructure

January 2020 - August 2020

Capital One Canada

Toronto, ON

Software Engineering Intern

May 2019 - August 2019

- ▶ Engineered UI library used by Customer Acquisition teams in **production**, reducing their codebases by over **90%**
- ▶ Guided tech stack migrations for the Canadian web teams for sites serving over 10,000 customers weekly
- ▶ **Doubled** deployment frequency by standing up a CI/CD pipeline to **automate** build, test, and publish procedures
- ▶ Developed CLI utility for **bootstrapping** applications with internal libraries, **expediting** the development cycle

 React, JavaScript, Node, Jest, Enzyme, Jenkins

Sunnybrook Research Institute

Toronto, ON

Software Development Intern

July 2018 - August 2018

- Reworked treatment-monitoring program to run **80% faster** and process larger datasets in real-time
- ▶ Revamped data pipeline by reducing memory-transfer requirements among compute devices by 50%
- ▶ Ported OpenGL render from CUDA Runtime to Driver API for lower levels of abstraction and full kernel control

Software Development Intern

July 2017 - August 2017

- ▶ Implemented program to automatically transform large 3D medical images for a set of algorithms to replace manual entry, improving ease of use and reducing operation time twofold
- ▶ Assisted configuration of virtualized Linux servers on which to run treatment-planning computations

C++, CUDA, OpenGL, Python, NumPy, Tkinter

Other Experience

FIRST Robotics Canada

Toronto, ON

Team 4914 - Team Captain, Head Programmer

December 2015 - June 2018

Introduced use of vision for goal tracking by implementing an OpenCV pipeline to lower aim-time by **60%**Java, Python, OpenCV, SolidWorks, Autodesk Inventor, WPILib

Markdown to HTML converter

GitHub repo >

Utility converting GitHub-flavored Markdown to HTML documents

C++

Personal Site

Site >

Online presence, hosting personal notes, resume, and web apps

React, MySQL, MongoDB, Django, Nginx

- Experience with **Bash** and **Linux** from daily driving Ubuntu, Debian, Arch, and Manjaro over the past six years
- ▶ Exposure to Scala, Scheme, and MIPS architecture through coursework

Education

University of Waterloo

Honours Computer Science (Co-op), 2023

- ▶ Cumulative GPA: 3.93 / 4.00
- ▶ Pursuing specialization in Data Science

Achievements

- ▶ Google Code Jam 2019 Round 2 qualifier
- ► Canadian Computing Competition 2018 Top 4%
- ▶ USA Computing Olympiad Gold Division since 2017