#### Richard Lu

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#### **EDUCATION**

## University of Toronto Mississauga

Honours Bachelor of Science in Computer Science Cumulative GPA: 3.69/4.00

Mississauga, Ontario Expected August 2024

#### SUMMARY OF SKILLS

#### Experiences in multiple environments with team members utilizing DP strategy to achieve objectives

• Programming Languages: Python, Java, C, Racket, Haskell, HTML, CSS, JavaScript, Linux CLI, JSON, LaTeX

### Full Stack Web Development

• Ability: Web-Architecture, Server/Client model, HTTP Request/Response, Selectors, Frameworks, Backend-Development, Venv, DB Models, ORM, Authentication, CRUD, RestfulAPIs, Serializers, npm, State &Events, JSX, Hooks, API Calls

### Knowledgeable in system and network securities

• Topics learned: Memory and Buffer overruns, Smashing the stack, SQL Injections, String vulnerabilities, Prepared-statements, Organizational principles, XSS, Cryptography, Prevention and Detection

### Proficient in multiple applications to achieve multi-purpose objectives

• Applications: MS, Adobe Premiere Pro &Photoshop, Visual Studio &Code, Ubuntu, Git, VMWare, Kali VM, Vim

#### **PROJECTS**

Restify Full Stack 2022

• Web application for different user groups focusing on the social interaction between restaurant owners and diners.

- Developed with two group members utilizing Agile Methodology, split into different phases for objectives.
- Full stack web application with front-back end separation: Frontend using ReactJS, Backend framework with Django.
- Django built-in SQLite database, front-back end interaction with RestfulAPI Calls Serialized with CORS Mechanism.

## Ext2 File System C

2021

- Ext2 FS implemented to make directories, copy &remove files and create links purely under Linux system with C.
- One of the three romances of programmers: Operating System. Expanded the knowledge in FS and OS and their structures.
- Implemented with persistence, concurrency and virtualization in mind, acquired locks and checked for inodes.

### Contacts Organizer Python

2020 - 2022

- Implemented the ability to search, locate, add, delete and list out local contacts stored with user-friendly console interaction.
- Directly write to and read from local files with Base64 encoding for increased security and improved efficiency.

### Bilibili Crawler Python

2020

Optimized the ability to crawl comments on Bilibili into local files and led a speed↑ on crawling by Automated API Calls.

## WORK EXPERIENCE

### ModiFace Inc.

Toronto, Ontario

AR Application Developer Intern

May, 2022 - April, 2023

- Developed Frontend SDK interfaces in a team of 9 utilizing Scrum; experienced with Vue.js framework &JavaScript.
- Fixed bugs and implemented features for multiple Frontend SDKs, providing an improved UI & UX User Experience.
- Principles-oriented code review and testing sessions to improve code quality and application efficiency.

#### Centre for Student Aid - Student Club

Mississauga, Ontario

 $Information \ Technology \ Assistant$ 

January, 2021 - Present

- Ensuring the website's durability, communicating with the group members utilizing Agile Methodology.
- Expanded the abilities in object-oriented programming, version control, and interface design.

## E-Sine Energy Internet Innovation Centre Inc.

Toronto, Ontario

Secretary

May, 2018 – April, 2019

- Sort tasks for the team and provide backup support. Attention to detail, working independently. Organizational skills
- Expert in Mandarin Chinese, Proficient in English, Competent in Japanese in a fast-paced environment.

# **AWARDS**

Dean's List

2020 - 2023

• University of Toronto Mississauga

## John Pounder Prizes

2020

• In Astronomy At Erindale

### EXTRA CURRICULAR ACTIVITY & INTERESTS

# C2 Badminton Club Member

June, 2016 - July, 2019

### Interests

• Full-Stack development, ski, skate, table-tennis, badminton, piano, anime, video edit.