

ANDY REN

Candidate for BAsC in Computer Engineering at the University of Waterloo, Class of 2023

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EXPERIENCE

Software Developer

VirtaMove

September 2019 – Present

Kanata, Canada

- Designed and implemented new features and user interface behavior for VirtaMove core products using **C#** and the **.NET Framework**
- Constructed reusable error handling methods which mitigated software race conditions using **C++**, **WinAPI** and the **WiX Toolset**

Web Analyst

Agriculture and Agri-Food Canada (AAFC)

January 2019 – April 2019

Ottawa, Canada

- Developed innovative web solutions using **JavaScript**, **HTML** and **CSS** for intra-departmental clients on the AAFC **SharePoint** platform
- Constructed string search/scrape methods in **PowerShell** with use of the **SharePoint API** to increase functionality for a back-end script that populates a monthly report on departmental **SharePoint** usage statistics
- Communicated with clients regularly to build practical, maintainable solutions and ensured that sensitive information was properly handled per the **Access to Information Act** and **Privacy Act**

PERSONAL PROJECTS

CareerCounsel

github.com/liaocanada/cuhacking-app

February 2019

CUHacking 2019

- Developed a **ReactJS** web application for CUHacking 2019 that retrieves **Indeed** listings using a **JSON string parsing/scraping algorithm** that summarizes job postings based on user inputted search parameters
- Built an Express.js server using **Node.js** framework to enable server-side script execution and **CORS**

Polynomial Calculator

github.com/terraglacium/polycalc.js

February 2019

- Built a calculator that converts string polynomials of the nth power into instances of objects usable for polynomial operations (i.e add, multiply, differentiation, integration) by a set of **JavaScript** scripts
- Utilized **Node.js** framework and **npm** libraries to emulate a CLI user interface

SUMMARY

- Proficient experience with functional scripting and programming languages (i.e. **Python**, **JavaScript**, **C++**, **PowerShell**)
- Practical experience with micro-controllers and integrated circuit design (i.e. **Arduino**, **VHDL**)
- Interest in embedded systems, healthcare, Internet of Things, and biotechnology

SKILLS

Languages

Python C++ JavaScript
PowerShell C C# VHDL

Frameworks and Tools

WinAPI .NET Arduino ReactJS
Node.js jQuery SharePoint LaTeX

ACTIVITIES AND SOCIETIES



ECE Academic Representative

Elected to represent engineering cohort twice as a First-Year **Academic Representative**



Lifelong Musician

Played **Piano**, **Alto Saxophone**, and **Mallet Percussion** throughout primary and high school

AWARDS

Walrus Award

Earl of March Secondary School

June 2018

- Awarded to the student who, over the years at the school, has made an important, continual, and perhaps often unseen contribution to the school community