

# ANDY REN

2A Honours Computer Engineering, University of Waterloo (2023)

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## EXPERIENCE

### Software Developer

#### VirtaMove

📅 September 2019 – Present

📍 Kanata, Canada

- Built new features for the VirtaMove V-Migrate and V-Maestro migration software using **C#** and **.NET Core**
- Constructed exception handling methods to resolve software installation and Windows registry key bugs, and mitigate run-time race-conditions using **C++**, **WinAPI** and **WiX Toolset**; reducing migration issues for customers
- Automated **V-Migrate** release-critical manual migration test cases using **Python**, **Robot Framework** and **TestStack.White**; increasing testing efficiency by 50%

### 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 scripts that generated reports 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**

## PROJECTS

### CareerCounsel

#### github.com/ren-andy/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** to enable server-side script execution and **CORS** proxying

### polycalc.js

#### github.com/terraglacium/polycalc.js

📅 February 2019

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

## SUMMARY

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

## SKILLS

### Languages

Python C++ JavaScript C#  
PowerShell VHDL

### Frameworks and Tools

Robot Framework .NET Core ReactJS  
Node.js Arduino SharePoint

## ACTIVITIES AND SOCIETIES



### Engineering Student Councilor

Elected to advocate for and represent the interests of Faculty of Engineering students at the **WUSA** Student Council



### Lifelong Musician

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

## EDUCATION

### Candidate for BAsC, Computer Engineering

#### University of Waterloo

📅 September 2018- Present

- Expected Graduation - May 2023