

ANDY REN

Computer Engineering at University of Waterloo

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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 issues, and mitigate run-time race-conditions using **C++**, **WinAPI** and **WiX Toolset**; reducing application migration issues for customers
- Automated **V-Migrate** release-critical manual migration tests 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 nth 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 scripting and object-oriented programming languages (**C++**, **Python**, **JavaScript**)
- Practical experience with micro-controllers and HDLs (**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 Council

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