ANDY REN

Computer Engineering at University of Waterloo

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EXPERIENCE

Software Developer
VirtaMove

📅 September 2019 – December 2019   📍 Kanata, Canada

- Built a robust internal test framework for VirtaMove using **Python** and **Robot Framework**, via the implementation of automation scripts that executed release-critical manual tests, increasing software testing and verification efficiency by up to **50%**
- Developed custom error handling implementations in **C++** to resolve V-Migrate installation and run-time related registry bugs using the **Windows API** and **WiX Toolset**
- Redesigned generation of migration agent identifiers, enabling V-Maestro to communicate with previously linked agents after a system reboot, which improved scalability
- Prototyped a new product activation GUI for migration licensing using **C#**, **.NET Core**, and **C++**

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

helper-goose
github.com/ren-andy/helper-goose

📅 December 2019

- Built a **Python** Reddit bot that responds to posts found on the /r/uwaterloo subreddit with kind messages or comments containing relevant information obtained via the **UWaterloo API** (e.g course codes, weather, etc)

CareerCounsel
github.com/ren-andy/cuhacking-app

📅 February 2019   📍 CUHacking 2019

- Developed a **React** web application for CUHacking 2019 coupled with an **Express.js** backend that retrieves **Indeed** and **Github** job postings based on user inputted search parameters, and classifies them by levels of education and experience

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   React   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