

ANDY REN

Computer Engineering at University of Waterloo

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🌐 github.com/ren-andy

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 the algorithm for migration agent identifier generation, 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

- Professional experience in **C++**, **Python**, **C#** and **JavaScript**
- Practical experience in **RISC-V** assembly, **VHDL**, and programming **Arduino**-like micro-controllers
- Interest in embedded systems, healthcare, biotechnology, and Internet of Things

SKILLS

Languages

C++

Python

C

JavaScript

C#

PowerShell

VHDL

Frameworks and Tools

Robot Framework

.NET Core

Git

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
- Relevant Courses:
 - ECE 250 - Algorithms and Data Structures
 - ECE 222 - Digital Computers
 - ECE 124 - Digital Circuits and Systems