ANDY REN

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

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EXPERIENCE

Software Developer
VirtaMove

📅 September 2019 – Present 📍 Kanata, Canada

- Developed new features and user interface behavior for the VirtaMove V-Migrate application using **C#** and **.NET Core**
- Constructed reusable error handling methods which reduced software race conditions using **C++**, **WinAPI** and the **WiX Toolset**
- Redesigned software licensing interface to include offline pre-migration licensing using **C#** and **Visual C++**; increasing offline migration efficiency by 40%

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**

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** framework 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** framework and **npm** libraries to emulate a CLI user interface

SUMMARY

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

SKILLS

Languages

Python C++ JavaScript C# PowerShell VHDL

Frameworks and Tools

WinAPI .NET Core Arduino ReactJS Node.js SharePoint LaTeX

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