

Ryan Sandoval

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Education

Computer Engineering, BSc Co-op

University of Alberta, Edmonton, AB

September 2017 – May 2022

Technical Skills

- **Microsoft Office Suite:** Word, PowerPoint, Excel, Outlook, Visio, SharePoint
- **Hardware and Operating Systems:** Arduino, Android, Linux, Windows XP to Windows 10
- **Languages:** Python, C++, JavaScript, Typescript, HTML, CSS, VHDL, Assembly, Bash, Java, SQL
- **Frameworks and Libraries:** WordPress, Flask, OpenStack, OpenAPI, Jekyll, Ansible, Vagrant, Robot Framework, Selenium, Playwright, React, Redux, Docker, Agile
- **Software:** Git, Inkscape, Unity, VirtualBox, Android Studio, Confluence, Jira, Vivado, Trello

Relevant Experience

Co-President and Imaging Team Co-Lead

September 2018 – Present

University of Alberta Aerial Robotics Group, Edmonton, AB

- Authored grant applications to secure funding for drone development and administrative expenses for the purpose of attending national and international competitions
- Coordinated with the University of Alberta to adapt team collaboration and safety workflows to Covid-19 restrictions and guidelines
- Managed five subsystem teams with a five-person executive team to deliver an innovative solution for two competitions
- Develop user interfaces, web servers, automation scripts, and automatic camera controls to ensure maximum performance during competitions
- Became familiar with all RPAS (Remotely Piloted Aerial System) mechanical, software, and electronic systems to troubleshoot system-wide problems

Software Developer

May 2021 – December 2021

HCL Technologies Canada, Edmonton, AB

- Performed full-stack development for an IaaS (Infrastructure as a Service) application powered by OpenStack to optimize computing node deployment for internal teams
- Developed an intuitive graphical user interface using React and TypeScript to allow non-expert end-users to interface with the IaaS application
- Created CLI applications using Python and the Typer framework to provide flexible and effective control for the IaaS application
- Provided integration testing services to developers by automating test environment setup using Python, Ansible, and Bash
- Architected and implemented a business intelligence application using Python, Grafana, PostgreSQL and Docker to enable management to make well-informed decisions
- Executed comprehensive testing with another team to qualify a 3rd party array as VPLEX supported
- Demoed completed tasks and stories to stakeholders to convey project progress

Undergraduate Teaching Assistant

September 2020 – December 2020

University of Alberta, Edmonton, AB

- Collaborated with the professor and other TAs to refine assessment materials for CMPUT 291 - Introduction to File and Database Management
- Guided students through the course content to create a constructive learning environment
- Meticulously marked student quizzes, projects, and reports to ensure a fair assessment
- Created videos for course materials to help students reinforce their learning
- Participated in weekly TA meetings to align course goals and discuss workflow improvements

System Integration Engineer Co-op

January 2020 – August 2020

General Dynamics Mission Systems Canada, Calgary, AB

- Contributed to daily scrums and biweekly planning sessions to maximize team performance
- Presented internal, cross-team and customer demonstrations to showcase new features and investigation results
- Onboarded new hires remotely with tutorials and info sessions to quickly get them up to speed
- Created new features and fixed defects in firmware using C and C++ to deliver a reliable and excellent embedded system product to defence personnel
- Automated firmware testing using Python and Robot Framework to reduce software regression
- Virtualized physical lab tools and automatically provisioned virtual machines using Vagrant, Ansible and VirtualBox to assist team members with remote work
- Performed full-stack development for an embedded system web server used by internal and external customers for managing the product

Configurations Management Summer Student

April – August 2019

Alberta Blue Cross, Edmonton, AB

- Created Bash scripts to automate onboarding processes in build and deployment tools
- Refactored existing scripts to conform with modern company and industry software practices
- Extended PLSQL package functionalities to better track projects during its SDLC
- Coordinated with the Web Admin Team to update and validate application onboarding data
- Wrote extensive documentation for scripts to ensure ease of use for future users
- Created high coverage unit tests and performed integration tests to ensure code stability

Educational Achievements

- Faculty of Engineering Academic Excellence Scholarship, 2017
- Jason Lang Scholarship, 2018, 2019, 2020
- A John E. Poole Engineering Undergraduate Scholarship, 2021

Hobbies

- High School Curling Team Captain, 2016-2017
- Grade 6 Piano Certified under the Royal Conservatory of Music
- Avid and Enthusiastic video game player

Other

- Class 5 GDL Driver's License with a reliable vehicle
- Completed WHMIS 2021, HCS 3000 and CSTS Courses
- Fluent in English, conversant in Tagalog, and self-learning Japanese
- Administrated 3 websites, one of which is bilingual (French and English)

References Available Upon Request