Alexander Uamai

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Professional Summary

Results-driven Mechatronic Systems Engineering graduate with experience in software development and manufacturing design. Passionate about power electronics, robotics, and energy industries. Ready to apply technical skills and drive innovation in a dynamic team.

Professional Experience

Pipeline Technical Director Intern - *Digital Domain* **Jan 2022 - Apr 2022**

- Led the successful migration of critical character effects (CFX) pipeline software tools from Python 2 to Python 3, improving software maintainability.
- Ensured code integrity and reliability through rigorous testing and debugging using PyTest and Digital Domain's proprietary testing framework reducing potential downtime and errors.

Manufacturing Engineering Intern - *VMAC Air* **Sep 2021 - Dec 2021**

- Created detailed 3D models and optimized designs for manufacturing using Solidworks and DFMA principles.
- Managed and revised engineering drawings with adherence to GD&T and ASME Y14.5 standards to ensure product quality.
- Utilized VMAC's Product Data Management (PDM) system for design collaboration and version control.
- Designed a dynamic web interface with HTML, CSS, JavaScript, and Python, enabling real-time data visualization for manufacturing throughput analysis.

Software Engineering Intern - *Ziva Dynamics* **May 2021 - Aug 2021**

- Led the development of a user-friendly tool integrated with Autodesk Maya, streamlining complex visual effects rendering on cloud-based resources.
- Enhanced Ziva's plug-in software usability for visual effects artists by designing and implementing a comprehensive menubar and toolbar using PySide.
- Conducted Unit Testing with CTest, Version Control with Git, and Code Reviews for high-quality code.

Information Technology Intern - *Mulgrave School* **Jan 2021 - Apr 2021**

- Provided Level 1 technical support, resolving help desk tickets promptly.
- Deployed OctoPi on Raspberry Pi devices, improving 3D printing capabilities.
- Demonstrated expertise in troubleshooting hardware and software.

Education

Simon Fraser University **Sep 2018 - Aug 2023**

Bachelor of Applied Science (BASc) in Mechatronic Systems Engineering

- **Honours:** Dean's Honour Roll - Spring and Summer 2023

Technical Skills

Programming Languages: C, C++, Python
Modelling and Simulation: Matlab, Simulink
CAD and Engineering Design: Solidworks, PDM, GD&T, Bill of Materials (BOM), 3D Printing
Microcontrollers and Communication Protocols: STM32, Arduino, Raspberry Pi, SPI, I2C, UART
Operating Systems: Linux, Windows, Mac
IDEs, and Tools: Visual Studio, Pycharm, PyTest, PySide, Qt, Terminal, Jira, Asana, Git, Github, Bitbucket