ALEXANDER UAMAI

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Education

Simon Fraser University Sep 2018 - Aug 2023

Bachelor of Applied Science (BASc) in Mechatronic Systems Engineering

Skills

- C | C++ | Python | Matlab | Simulink | Solidworks | PDM | CAD | STM32 | Arduino | Raspberry Pi | Linux
- SPI | I2C | UART | Device Drivers | FreeRTOS | Version Control | Git | Github | Bitbucket | Jira | Asana
- GD&T | Visual Studio | Pycharm | PyTest | PySide | Qt | Terminal | 3D Printing | BOM | Research

Work Experience

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

- Led the migration of critical character effects (CFX) pipeline software tools from Python 2 to Python 3, enhancing maintainability and future-proofing the company's software infrastructure.
- Ensured code integrity and reliability by meticulously testing and debugging the software tools using both the PyTest framework and Digital Domain's proprietary testing framework.
- Achieved error-free codebase, resulting in enhanced stability and productivity in the CFX pipeline, reducing potential downtime and errors in production.

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

- Created detailed 3D models and drawings of parts and components of an air compressor test bench using Solidworks, and employed DFMA principles to optimize the designs for manufacturing.
- Managed and revised engineering drawings, and utilized Geometric Dimensioning and Tolerancing (GD&T), maintaining strict adherence to ASME Y14.5 standards to guarantee product quality.
- Employed VMAC's Product Data Management (PDM) system to facilitate design collaboration and version control.
- Designed and developed a dynamic web interface using HTML, CSS, JavaScript, and Python, providing real-time charts and data visualization for manufacturing throughput analysis.

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

- Led the development of a user-friendly tool that seamlessly integrated with Autodesk Maya, enabling VFX artists to submit and render complex visual effects scenes on cloud-based computing resources.
- Designed and implemented a comprehensive menubar and toolbar for Ziva's VFX 2.0 Maya plug-in using PySide to improve the usability of the software and creating an enjoyable user experience.
- Conducted Unit Testing with CTest, actively engaged in Pull Requests, facilitated thorough Code Reviews, and adeptly managed Version Control with git ensuring the delivery of high-quality code.

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

- Provided Level 1 technical support, offering expert guidance to students, and staff, swiftly resolving help desk tickets and technical issues.
- Led the deployment of OctoPi on Raspberry Pi devices, and designed enclosures for the Raspberry Pi Cameras, significantly enhancing 3D printing capabilities at Mulgrave.
- Demonstrated expertise in troubleshooting hardware and software, including PCs, telephones, TVs, and other electronic devices, promptly diagnosing issues and implementing effective solutions.