**SUMMARY OF QUALIFICATIONS**

* Exceptional communicator and team collaborator.
* 4 years of experience with programming in C++, C#, and other C-based languages.
* Proficient in Python and VHDL languages along with MS Visual Studios, Xilinx Vivado, MATLAB, and LabView applications.
* Experienced in unit testing, SIT, and the Software Development Cycle (SDLC)
* Hands on experience in GUI and software design, development, and unit testing
* Led project (software and hardware) teams in planning, designing, execution, delivery of student projects, and simulated UAT

**PROJECTS**

**Pseudo-Node Attack on Smart Grid** **November 2017 to November 2018**

**Systems Integrations Officer**

Utilizing Python, Kali Linux, and two Raspberry Pi’s to simulate a Pseudo-Node attack on the model. Obtaining real-time data from the Smart Grid model using Python’s Tkinter, pyFirmata, and Matplotlib libraries. Duties include coordinating and collaborating deliverables planning and scheduling, resource planning, updating schedules and timelines, task estimating, identifying risks, and reporting status.

[*www.devonmarantz.com/portfolio/pseudo-node-attack-smart-grid/*](http://www.devonmarantz.com/portfolio/pseudo-node-attack-smart-grid/)

**Smart Grid Model GUI January 2018 to June 2018**

**Software Lead**

Worked with a team of hardware engineers to adapt a GUI for a Smart Grid Model using Python. Primary software engineer for all software deliverables developing code, scripts, schedules, resource plans, time estimates, project risks, monitoring and reporting status. Executed unit testing, systems integration testing and user acceptance testing for all software for the Smart Grid. Exploited Tkinter and pyFirmata libraries to control the Smart Grid Model with the Raspberry Pi’s touchscreen. Utilized AutoCAD to create 3D models on screen and for output to 3D printers.

[*www.devonmarantz.com/portfolio/smart-grid-model-gui/*](http://www.devonmarantz.com/portfolio/smart-grid-model-gui/)

**Pseudo-Node Attack on Smart Grid January 2018 to March 2018**

**Project Lead**

Managed of a team of software engineers, hackers, infrastructure system administrators and security analysts to implement a DoS attack on a Smart Grid model. Created a timeline with deliverables and assigned roles for each team member. At the end of the quarter the team completed the design and approach of the attack, created a list of materials required, simulated a virtual model of the Smart Grid using Simulink in MATLAB, and assembled a network for two Raspberry Pi’s to communicate via WiFi.

[*www.devonmarantz.com/portfolio/pseudo-node-attack-smart-grid/*](http://www.devonmarantz.com/portfolio/pseudo-node-attack-smart-grid/)

**File Directory Model January 2018 to March 2018**

**Independent**

Simulated a File System by using arrays to create a File Allocation Table and data array using Visual Studio C++. Created a class to create, read, write, update and delete files. Created functions in the class that would print the clusters, directory, and data.

[*www.devonmarantz.com/portfolio/file-directory-model/*](http://www.devonmarantz.com/portfolio/file-directory-model/)

**LED Matrix September 2017 to December 2017**

**Project Lead**

Managed a team of 5 people to design, build, and test a Programmable LED Matrix. Created a timeline, assigned roles, and managed fulfillment of deliverables using Microsoft Project. Collaborated with Software Lead to integrate the Arduino Uno into the LED Matrix.

[*www.devonmarantz.com/portfolio/led-matrix/*](http://www.devonmarantz.com/portfolio/led-matrix/)

**DC Motor Control System March 2017 to May 2017**

Worked with a lab partner to design, build, test, and tune a DC Motor Control System. Utilized LabVIEW to create a control system model to output through a National Instruments’ myDAQ.

[*www.devonmarantz.com/portfolio/motor-control-system/*](http://www.devonmarantz.com/portfolio/motor-control-system/)

**FPGA Roulette Game September 2016 to December 2016**

Worked with a lab partner to program an FPGA to execute a roulette game on an array of LEDs. Used Xilinx Vivado to program a roulette game on a Nexys 4 DDR FPGA.

[*www.devonmarantz.com/portfolio/fpga-roulette-game/*](http://www.devonmarantz.com/portfolio/fpga-roulette-game/)

**TECHNICAL SUMMARY**

* Proficient in a variety of application tools: MS Office Suite, MS Project, Asana, MS Visual Studio, Xilinx Vivado, MATLAB, LabVIEW, PSpice, WordPress, AutoCAD, Final Cut, iMovie, PhotoShop, GarageBand
* Adept in computer programming frameworks such as C++, C#, Python, VHDL, Verilog, Arduino, Java, HTML, MySQL

**EXPERIENCE**

**ASI Campus Recreation July 2017 to August 2018**

**Adventures Attendant**

Monitoring climbing wall and related programs. Conduct and instruct orientation classes for the climbing wall patrons. Manage risks in and around the climbing space. Assess patron’s abilities and skills with required equipment. Perform routine inspections of the equipment and address any potential hazards. Plan, create and manage schedules, task assignments and patrons.

**Green Clean Etc. May 2010 to August 2013**

**Online Marketing / System Administrator**

Generate and update website content (e.g. products, manage inventory, content, promotions) Monitor KPIs on the website and develop plans to improve them. Analyze Search Engine Optimization rankings and website traffic. Plan, define, and implement website changes and functional improvements. Work with sales team to create and analyze online marketing campaigns.

**EDUCATION**

**California State Polytechnic University, Pomona June 10, 2018**

**Bachelor of Science in Computer Engineering**

**ACTIVITIES**

**www.devonmarantz.com January 2014 to Present**

**Website Owner**

**Self Employed September 2012 to Present**

**Math Tutor**

**Ohana Polynesian Dancers March 2009 to Present**

**Musician and Dancer**

**St. Denis Church September 2009 to May 2013**

**Youth Teen Leader**