

# Thien Nhan H. Nguyen

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## EDUCATION

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### Washington State University

*Bachelor of science in Electrical Engineering, Minor in Computer Science*

Vancouver, WA

June 2021

### Relevant coursework

#### *Embedded Systems*

- Controlling communications between tasks with different priorities in a real-time operating system on Cortex M
- Design, implement and debug an embedded or RTOS software program that controls external devices
- Developed software for SPI master communications involving bit-Bang and ASIC peripheral

## EXPERIENCE

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### R&D Engineer Intern

Feb. 2020 – Jan. 2021

*Rightline Equipment, Inc*

*Vancouver, WA*

- Programmed software for micro-controller and Linux based systems in Python, C/C++, Arduino, and STM32 HAL libraries
- Written Python scripts of an automated system checking for quality and reliability assurance of products
- Explored ways to design, architecture and software implementation for embedded devices surrounding Arm and 8-bit processors
- ECAD/EDA design, component specification, BOM generation and prototype development.

### Clark College Aerospace's Software Engineer

Sept. 2018 – June 2019

*Clark College*

*Vancouver, WA*

- Wrote software algorithm in C/C++/Arduino for piping measurements from sensors to embedded processing system
- Code reviewed, troubleshooting, and debugged prototype hardware and software for Spaceport America Cup projects
- Support quality initiatives to improve product performance and reliability through peer design reviews
- Collaborated with an interdisciplinary team to ensure production processes, and designs and equipment would meet team's expectations
- Worked together in presenting the team's collaborative projects to the Spaceport America Cup by ESRA

## PROJECTS

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### Encoder Display Interface | C/C++, Arduino, Atmel Studio, Altium Designer

August 2020 – June 2021

- Designing and prototyping circuit's schematics, PCB, and software for the micro-controller of the system
- Evaluating current schematic and codes requirements and assess capital investment plans for future production requirements
- Researching and sourcing of components and vendors for prototyping materials
- Managing and guiding team plans towards realistic goals that are achievable by individual members

### Smart-Clamp Quality Testing System | C/C++, Python, Linux, Eagle EDA

March 2020 – Jan 2021

- Developed software for I2C master communications system to validate system-level functionality and features using Python and C/C++
- Designing project plans with consideration for new features on each product along with automation scripts to execute tests and archive results
- Electronic and PCB design with integration to embedded Linux system
- Troubleshoot electronics with engineering instruments including Oscilloscope and Multi-meter

## TECHNICAL SKILLS

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**Languages:** Python, C/C++, Assembly

**Engineering Tools:** Multi-meter, Oscilloscope, Re-flow soldering, EagleCad, Altium Designer, Linux terminal, Arduino, STM32CubeMX, Atmel Studio 7.0