

Taylor C. Nunes

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EDUCATION

Osaka University
Master of Science, Physics

October 2019 - September 2021
GPA: 3.83/4.00

North Carolina State University
Bachelor of Science, Mechanical Engineering

August 2014 - May 2018
GPA: 3.94/4.00

EXPERIENCE

KOTO Collaboration
Master's Student

Osaka, Japan
Oct 2019 - Sep 2021

- Worked with embedded Linux development and build data collection pipelines for user control interface.
- Created signal procession algorithms to reduce noise and improve signal accuracy.
- Led the development of a particle detector that improved measurement precision by 96%, including material and electronic design, signal analysis, and iterative development.
- Conducted large scale Monte Carlo simulations for feasibility and performance crosschecks using GEANT4.
- Gave technical presentations and conferences and events based on research and papers
- Developed primarily in C++, Python, ROOT, and Bash, in a Linux environment.

Symbrium
Associate Project Engineer

Raleigh, United States
Jun 2018 - Mar 2019

- Led full stack development of test machines, designing the user interface and managing the back end collection and storage of user data in SQLite in a windows environment.
- Conducted statistical analysis of gear test data to determine the lifetime of parts.
- Worked hands on with electrical system design with power management, signal processing, and feedback control.
- Developed primarily in C# and Python with some low level proprietary software.

ACTIVITIES

<https://github.com/TaylorNunes>

- Face mask classification using deep learning in Tensorflow and keras.
- Japanese-language data-scraping pipeline to auto generate language learning flashcards
- Algorithmic unique image generation in Javascript
- Home automation integration using a raspberry pi, home assistant, and docker.

SKILLS

Programming skills:

Python, Tensorflow, Keras, PyTorch, OpenCV, C++, Bash, Git, Jupyter, SQLite, Javascript, PHP, Docker

Languages:

English (Native), Japanese (Conversational)