

Troy Tharpe

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EDUCATION

University of Florida

B.S. Electrical Engineering
Minor in Computer Science

Graduation date: May, 2019

GPA: 3.87

Member of Honors Program

PROFESSIONAL EXPERIENCE

Cirrus Logic, Austin TX

May 2018 – August 2018

MEMS IC Validation Intern

- Responsible for improving MEMS characterization system capabilities. Reduced test times by a factor of ten via improved post processing techniques in LabVIEW. Increased system usability via GUI and dataflow improvements.
- Developed and ran ASIC validation tests for acoustic parameters (THD, SNR, PSR, Gain, Sensitivity, etc.). Validation system consisted of Python calls to APx Audio Analyzer APIs.
- Utilized Spotfire data visualization software to deduce device and test system faults.

Texas Instruments, Tucson AZ

May 2017 – August 2017

Validation Engineering Intern

- Developed high speed digital communication capabilities for the Delta-Sigma test bench.
- Communication capabilities consisted of LabVIEW drivers for SPI and I2C data communication, digital patterns using National Instrument's PXIe 6570, and PCB hardware for signal routing to devices under test.
- Test hardware and software allowed for validation of high bandwidth Delta-Sigma ADCs.

Lockheed Martin, Cape Canaveral FL

May 2016 – August 2016

Electrical Support Equipment Intern

- Hands on experience with NI signal generators, timing cards, and LabVIEW to emulate serial guidance data streams.
- Developed over 20 GUIs in Java to aid test engineers with evaluation tests for the Trident II missile.
- Established a General Purpose Unit system of common electrical hardware to cut program costs and time.

Lockheed Martin, Cape Canaveral FL

May 2015 – August 2015

Electrical Support Equipment Intern

- Performed error analysis on signal path circuitry for the Destruct Interlocks Package Test Console.
- Developed file parsing software to make conversion and interpretation of large data files easier.

ACADEMIC INVOLVEMENT

Circuits 2- EEL 3112C

August 2017– Present

Teaching Assistant

- Responsible for developing rubrics for assignments/examinations and holding weekly office hours.

IEEE at UF

August 2015– Present

Assistant Treasurer / Treasurer

- Organized and produced remote learning lessons in robotics for local high school students.
- Responsible for managing allocations, expenses and overall budget of a large student organization.

Engineering Education Laboratory

January 2016 – May 2016

Research Assistant

- Worked with Dr. Ira Hill on programming Roomba robots in C++.
- Designed lesson plans to be used in Dr. Hill's Fundamentals of Programming class.

TECHNICAL SKILLS AND COURSEWORK

- Relevant Coursework: Real Time DSP Applications, Foundations of DSP, Intro to Machine Learning, Signals and Systems, Digital Design, Design 1, Data Structures and Algorithms, Computer Organization, Microprocessor Applications, Digital Logic, Circuits 1 & 2, Electrical Energy, Programming 1 & 2, Linear Algebra
- Proficient with LabVIEW, C++, C, Java, Matlab, assembly, and Python programming languages
- Professional experience with NI's PXI electronic test equipment platform and Spotfire data analysis software