

SAM FOUCART

<https://www.linkedin.com/in/samfoucart/>

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EDUCATION

Ohio University

B.S. Electrical Engineering

Math Minor, Computer Science Minor

August 2017 - Expected May 2021

Athens, Ohio 45701

GPA: 3.7105

WORK EXPERIENCE

Ohio University

Undergraduate Researcher

Spring 2019 - Current

Athens, Ohio

- Researched under Dr. Wojciech Jadwisieniczak in the optics/laser lab.
- Developed a Raspberry Pi application in Python/C++ for collecting data from a spectrometer.
- Developed an Android native application in Java for receiving, plotting (MPAndroidChart), and saving (SQLite) the collected data from a Bluetooth socket hosted by the raspberry pi.
- Researched using Machine Learning, Convex Optimization, and Principal Component Analysis (PCA) to estimate a reflectance spectra from an RGB image
- https://github.com/samfoucart/oueecs_SpectralDataViewer

Ohio University

Teaching Assistant

Spring 2020 - Current

Athens, Ohio

- Teaching Assistant for EE 2114 - Circuits 2 and ET 3132 - Basic Electrical Engineering
- In the course we cover: AC Circuit Analysis, 3-Phase Power, Transformers, Frequency Response, and Laplace Transforms
- Led a lab section and helped with grading

SRC Inc.

Electrical Engineering Intern

Summer 2020

Fairborn, Ohio

- Worked with Electronic Warfare (EW) contracts for the Wright Patterson Air Force Base
- Utilized Signal Intelligence (SIGINT) tools to characterize radar Pulse Descriptor Words (PDWs) into Electronic Intelligence (ELINT) Intercept Models (EIMs)
- Created simulation scenarios for generating arbitrary PDWs
- Learned about radar operation, vocabulary, tooling, IQ signals, radar data, machine learning

NICE inContact

Software Engineering Intern

Summer 2019

Columbus, Ohio

- NICE inContact is a telecommunications company specializing in call recording.
- Worked on the Media team using FFMPEG codecs wrapped in C# for video call capture, transcoding, compression, and streaming video calls to a Javascript playback portal.
- Gained Experience with Microsoft SQL, Visual Studio, signal processing, filtering, communication engineering, telecom audio standards, git, continuous integration, scrum, JIRA.

SKILLS

- **Programming Languages:** C/C++, C#, MATLAB, Python, Java, Javascript, SQL, L^AT_EX
- **Software & Tools:** Visual Studio, IntelliJ, CMAKE, PyCharm, git, Numpy, Pandas, OpenCV, JIRA
- **General:** Signal Processing, Linear Algebra, Unit Testing, Windows, Android, Linux/Unix, MacOS
- **Other:** IEEE, Micromouse, SumoBot, Tutoring, 3D Printing, OpenGL, WebGL, GLSL