

Experience

Northrop Grumman

Principal Systems Engineer

Redondo Beach, California

Nov. 2020 - Nov. 2021

- **Claim to fame:** programming scripts to replace time-consuming processes
- Primary coding developer for Radio Frequency (RF) requirement analysis tools
- Developed BER curve simulations for communication systems
- Computed RF requirement capabilities, margins, and compliance
- Implemented system engineering V-Model for a large set of requirements
- Wrote requirement verification documents
- Co-lead 2021 Summer Interns assignments

Dynetics - A Ledios Company

Electrical Engineer II

Dayton, Ohio

Dec. 2017 - Aug. 2020

- **Claim to fame:** adding new capabilities to radar models in MATLAB and Simulink
- Project manager for TMAP technical support tasks
- Project manager and developer for a signals analysis task
- Performed research and analysis of EW platforms
- Added advanced functionality to a MATLAB/Simulink radar scan GUI
- Generated unit tests for C++ Mex S-Functions
- Interfaced air-to-surface capabilities into a Simulink model
- Managed office's social committee events

Air Force Institute of Technology (AFIT)

Electrical Engineering Intern

WPAFB, Ohio

Nov. 2015 - Dec. 2017

- **Claim to fame:** coding M-Ary PSK and M-QAM modems in MATLAB
- Configured Windows and Linux OS for students
- Integrated DSSS and CDMA techniques into modems in MATLAB
- Studied the effects of physical layer algorithms on software defined radios
- Wrote reports in LaTeX regarding communication research

Technical Strengths

- 8 Yrs **MATLAB** – coding algorithms for radar systems, comm systems, UI development, and data trending
- 6 Yrs **Signal processing** – understanding RF mixing, sampling, filtering, and modulation
- 2 Yrs **Networking** – understanding TCP/IP, UDP, DHCP, DNS, NAT, VPN, Unix/Linux, Windows
- 1 Yrs **Python** – interfacing Excel applications, UI development, and data trending
- 1 Yrs **C & C++** – coding mex functions, DLL wrappers, and QT-based GUIs
- 4 Yrs **TortoiseSVN** – implementing version control software
- 3 Yrs **Simulink** – modeling high fidelity radar systems, embedded MATLAB, and s-functions
- 1 Yrs **DOORS** – tracking requirements for large scaled projects
- 1 Yrs **HTML/CSS** – personal website development

Education

Wright State University

M.S., Electrical Engineering

Dayton, Ohio

Aug. 2017 - Apr. 2018

- Signal processing and communications track
- Combined B.S./M.S. degree program
- GPA: 4.0

Wright State University

B.S., Electrical Engineering

Dayton, Ohio

Aug. 2013 - Apr. 2017

- Senior Design Project: UAV Automated Detection System
- General Studies Honors
- GPA: 3.82