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## **Experience**

**Northrop Grumman** Redondo Beach, California

Principal Systems Engineer

- 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 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

• 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 (RF) discrimination 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
- Networking understanding TCP/IP, UDP, DHCP, DNS, NAT, VPN, Unix/Linux, Windows 2 Yrs
- 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
- **Simulink** modeling high fidelity radar systems, embedded MATLAB, and s-functions 3 Yrs
- **DOORS** tracking requirements for large scaled projects 1 Yrs
- 1 Yrs HTML/CSS - personal website development

## **Education**

**Wright State University** Dayton, Ohio

M.S., Electrical Engineering

· Signal processing and communications track

- · Combined B.S./M.S. degree program
- GPA: 4.0

### **Wright State University**

Dayton, Ohio Aug. 2013 - Apr. 2017 B.S., Electrical Engineering

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

Nov. 2020 - Nov.2021

Dayton, Ohio

WPAFB, Ohio

Nov. 2015 - Dec. 2017

NOVEMBER 5, 2021

Aug. 2017 - Apr. 2018