# Brendan Tierney

407-616-1164 · brendantierney.thanh@gmail.com · Irving, Tx, 75039

## Education / Languages

- **University of Florida – Graduated 2018 – B.S. Electrical Engineering**
- **Proficient –** Python, Java | **Familiar –** C, Javascript, Postgres, Matlab

## Professional Experience

**Raytheon Technologies / Ctr.** **Richardson, Tx**
*Software Engineer II* *November 2021-Present*

- ***Designed and Implemented,*** as the primary developer, a desktop application for the customer using Java, Postgres, and Active MQ. Used Swing, JDBC, and embedded brokers for messaging. Bash scripting for deployment of code. Designed logic and GUI for time-sequence playback of data. Consumed 3rd party API to leverage approved application code reuse, extended classes, and implemented interfaces as needed. Wrote custom ANT build scripts according to project requirements and system limitations as needed. Developed on Windows machines and AWS cloud servers in a RHEL environment, and deployed to both Windows and Linux environments. Utilized Atlassian/Bitbucket Git for SVC. Customer's feedback was positive, project demonstrated potential for the company's ability to integrate 3rd party applications into existing frameworks and opened new business opportunities for the customer to explore.
- ***Designed and Prototyped*** a Continuous Integration / Continuous Deployment (CI/CD) solution for internal business needs. Utilized Jenkins in a Docker environment on AWS server behind Bastion servers to automate processes that previously required manual testing. Utilized images from Iron Bank for security. Leveraged VirtualBox, created and managed various virtual machines to deploy clean virtual environments to run tests in. Used multiple Jenkins Agents, SSH tunneling/keygen/config, windows and bash scripting as required

**DCS Corp. / Ctr.** **Eglin AFB, FL**
*Electronic Warfare Engineer II – Mission Data Programmer* *July 2019-November 2021*

- ***Developed and wrote*** various software using Python/Anaconda to assist rapid mission data generation using various RF characteristics. Used Git for version control. Wrote MS Batch files for startup of environments and execution of Python programs. Originally self-directed, after demoing the capability of the self-written software, collaborated with End Users and Subject Matter Experts to integrate App with desired functionality. Continuously provide updates to software while integrating App into current processes. App solved problems of limited testing time. Automation software to be used over many years and save customer over 1000 work-hours/year. Received a Bonus for effort undertaken beyond normal daily responsibilities
- ***Performed*** rapid reprogramming and optimization for mission-ready RF emitter data. Applied knowledge of radar modes, radiation patterns, frequency/wavelength, phase/amplitude, polarization, pulsed/cw, duty cycles, pris and advanced techniques, modulations, bandwidths, harmonics, basic structure of a transmit/receiver, etc. to deliver solutions to customer. Performed laboratory testing (Spectrograms, Oscopes) with Simulation Team and troubleshooted mission data using knowledge of RF Systems and Emitters
- ***Proposed*** a Python/matplotlib/tkinter alternative to Matlab and solution saved customer $1500/yr.
- ***Analyzed and provided solutions*** for defects in Java code within 1 hour by creating scripts with Python. Solution saved 1 week suspense for official software release for time-sensitive work
- ***Responsible*** for verifying and certifying mission data completed by colleagues

**Northrop Grumman Corp. / Ctr.** **Melbourne, FL**
*Associate Engineer* *February 2019 – July 2019*

- With just brief introduction to testing on Linux/RedHat, VAX/VMS, and Windows operating systems over SSH/-X/Putty/telnet and in person, was able to prioritize and complete 25 time-sensitive projects for customer
- Developed and documented comprehensive testing procedures for software testing

## Relevant Classes

- Signals and Systems (Matlab), Intro to Machine Learning (Python), Junior/Senior Design (SPI, UART, LCD), Digital Design (FPGAs – VHDL, soft core MIPS processor), Senior Design (Oscopes, Network Analyzers, Superhet), Intro to Radars, Antenna Theory (HFSS final project), Controls (PID controller, C)