Timothy Lucas Briggs

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Education

Northeastern University   **Boston, MA**
Bachelor of Science in Electrical and Computer Engineering   Expected Graduation: 12/2021
GPA: 3.81
Honors: National Merit Finalist, University Dean's List, University Honors Program

Relevant Coursework

- GNSS Signal Processing
- Noise and Stochastic Processes,
- Wireless Communication Circuits
- Fundamentals of Electronics
- Fundamentals of Linear Systems
- Object-Oriented Design
- Fundamentals of Digital Design/Comp. Org.
- Fundamentals of Engineering Algorithms
- Fundamentals of Networks
- Introduction to Product Prototyping

Internship Experience

Space Exploration Technologies Corp. (SpaceX)   **Redmond, WA**
Starlink Co-op   01/2021 – Present
- Working on a team dedicated to test automation software development in C# for RFIC devices built in-house.
- Helping to design an instrument-control (SCPI) and measurement framework using object-oriented concepts.
- Will be working on data pipelining and analysis from SpaceX online databases using Python.

Astranis Space Technologies Corp.   **San Francisco, CA**
Satellite Radio Hardware Co-op   01/2020 – 06/2020
- Designed, built, and programmed electronic hardware to test the power system of the satellite's internet radio.
  - Wrote Python scripts to characterize supply metrics such as load/line regulation and sensing accuracy.
- Developed control UIs, measurement, and automation scripts in Python for all internet radio electronics.
  - Implemented user-control interfaces for assisting in operation of electronics during tests.
  - Passed signal measurement data to and from an online database for analysis and visualizations.
  - Built an online dashboard for my team to visualize signal data coming from the radio in real-time.

Draper Laboratory   **Boston, MA**
RF Systems Co-op   01/2019 – 06/2019
- Studied the feasibility of using ionospheric reflections of lightning strikes as a source for some radar system.
- Worked with a team to prototype a bi-static radar system that could track a moving target.
  - Developed a UI in Python to control a pair of servos and visualize their individual angles.

Team Projects

Wi-Fi Positioning Research (NEU-SPIRAL): Assisted a team developing positioning algorithms using a neural network based on the strength of signals received from a set of Wi-Fi access points in a room.
- Developed a simulation in Python for signal strength throughout a room based on real research data.
- Wrote additional tools to estimate a random-walk trajectory through the room using a Kalman filter.

eKondo (Hacktech '20): Worked with two others to build an eBay listing tool for quick sale of home clutter.
- Wrote a Python script to scrape data from online storefronts to generate a product price and description.
- Won 3rd place in our category out of 13 participant projects for a total prize of $300 in eBay gift cards.

Technical Skills

Electronics Development:	**Programming Languages:**	**Other Tools:**
Altium, LTSpice, Network and Spectrum Analyzers, Arduino	Python, C#, Java, C++, C, Verilog, HTML, CSS	Linux, Git (and Arc), MATLAB, SolidWorks, GNURadio

Interests

Acoustic, Electric, and Classical Guitar, Astrophotography, Rock Climbing, Skiing, Surfing, Sailing.