**Josh Booth**

Shippensburg, PA 17257 & McConnellsburg, PA 17233

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**Education:**

* McConnellsburg High School; GPA: 4.04 Graduated June 2018
* Shippensburg University, B.S. for Computer Engineering Graduating May 2022

**Work Experience:**

* United States Naval Research Laboratory Employee Summer 2018
  + Simulated radio frequency communications passing through noise using MATLAB.
  + Proved machine learning could identify messages corrupted with noise.
  + Primary author on “​[Machine Learning in Radio Frequency Communications](http://www.jbooth.us/server/static/pdfs/MachineLearningInRadioFrequencyCommunications.pdf).[”](http://www.jbooth.us/server/static/pdfs/MachineLearningInRadioFrequencyCommunications.pdf)​
* United States Naval Research Laboratory SEAP Intern Summer 2017
  + Worked on the “Tri-service Synthetic Biology Project” using machine learning to identify promoter sequences after parsing them with python.
  + Collaborated with fellow scientists to delegate tasks and share results.
  + Co-authored “​Prediction of Bacterial Promoter Sequences using Machine Learning​.”
* Central Fulton School District Help Desk Technician August 2015 - July 2018
  + Managed and assigned help desk tickets.
  + Troubleshot and repaired teachers’ and students’ school and home computers.
* Phone Repair Technician August 2016 - Present
  + Managed and communicated with clients for repairing their phones.
  + Inventoried spare screens, batteries, and other phone parts to speed up the phone repair process.
* Website Manager for Buchanan Trail Sporters LLC November 2017 - May 2018
  + Consulted with a local business to create a website and manage the content.
* Agriculturalist May 2013 - August 2015
  + Grew various crops, advertised, and negotiated with various businesses to stock the produce.

**Engineering Skills and Notable Projects:**

* Programmed serial communications using checksums between a Raspberry Pi and a specialized module for reading outputs of oil wells using C.
* Used machine learning library TFLearn in various applications at the Naval Research Laboratory in Washington D.C. as well as parsed numerous datasets for usage within the neural network using Python.
* Implemented home security using Raspberry Pi cameras to have motion detection and facial recognition using libraries in both Python and C++.
* Constructed website using web2py for managing on-going phone repairs.

**Certifications/Achievements:**

* CompTIA A+ Certified Service Technician July 2017
* OSHA Certified March 2018
* Eagle Scout Troop 27 – Mercersburg, PA; February 2018
* Published Scientist
* Ranked 5th Nationally in SkillsUSA Information Technology Competition
  + State and district champion SkillsUSA Information Technology Competition
* 2017 Pennsylvania State Track Meet 300m Hurdles Champion

References available upon request