# **Josh Booth**

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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:**

• Central Fulton School District Help Desk Technician

August 2015 - July 2018

- o Managed and assigned help desk tickets.
- o Troubleshot and repaired teachers' and students' school and home computers.
- 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.
- o Collaborated with fellow scientists to delegate tasks and share results.
- o Co-authored "Prediction of Bacterial Promoter Sequences using Machine Learning."
- United States Naval Research Laboratory Employee

Summer 2018

- o Simulated radio frequency communications passing through noise using MATLAB.
- o Proved machine learning could identify messages corrupted with noise.
- o Primary author on "Machine Learning in Radio Frequency Communications."
- Phone Repair Technician

August 2016 - Present

- o Managed and communicated with clients for repairing their phones.
- o 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

- o Consulted with a local business to create a website and manage the content.
- Agriculturalist

May 2013 - August 2015

o 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
  - o State and district champion SkillsUSA Information Technology Competition
- 2017 Pennsylvania State Track Meet 300m Hurdles Champion