

# Josh Booth



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## WORK EXPERIENCE

CURRENT, FROM JUN 2022 (FT)

### Microchip Technology *Applications/Marketing Engineer*

Bridged the gap between technical aspects of 8-bit microcontroller products and their marketing strategies. This role involved both developing the initial mass market campaign for multiple products and explaining technical concepts in an easily digestible way to the mass market and field sales reps. Internally, I also lead an analytics initiative that lead to better data-driven decisions about our marketing campaign strategies.

JUN 2017 - JAN 2022 (FT/PT)

### United States Naval Research Laboratory *Electrical Engineer Student Trainee*

Developed machine learning and a data analytic foundation through multiple projects involving detecting and classifying objects in satellite imagery to improve field response time, recovering noisy RF communications by augmenting a message passing algorithm with a Bidirectional RNN with GRU cells, and identify promoter sequences in DNA using Bidirectional RNN with LSTM cells.

SEP 2016, JUN 2022 (FT/PT)

### Booth Oil and Gas LLC. *Prototype Engineer*

Developed specialized prototypes for novel problems the client faced in both day-to-day operations as well as for expanding the business, such as building an human-sized PEEK 3D printer for biofuel refinement. I offered technical expertise for project planning, cost estimation, feasibility studies. In addition to other project management tasks, I communicated with the client to manage their expectations and incorporate or remove features as their needs changed.

## EDUCATION

### 2018-2022 Computer Engineering

SUMMA CUM LAUDE; 3.98 GPA; COMP ORG SI

Bachelors of Science

*Shippensburg University of Pennsylvania*

### 2018-2022 Mathematics

Minor

*Shippensburg University of Pennsylvania*

## NOTABLE PROJECTS

### *DMX Light Show*

I believe in action long-winded discussions. I listen to everyone's viewpoints and use my judgement to immediately act based on consensus to achieve goals quickly and efficiently.

### *AI-Driven Security System* %

A wireless, solar-powered security system that provides real-time alerts through AI-identification of humans, vehicles, and large animals.



### *3D PEEK Printer*

I have been interested in theoretical physics such as quantum mechanics and relativity from an early age. My education and research have cemented this interest into a passion. I greatly enjoy carrying out fundamental physics research with potential practical applications.

### *The Cold Plate*

The cold Plate

## AWARDS

1985 **Faculty of Science Masters Scholarship**  
*Massachusetts Institute of Technology*

1983 **Top Achiever Award – Physics**  
*The University of Washington*

## PUBLICATIONS

2023 Using Core Independent Peripherals (CIPs) to Implement a Peltier Cooled Metal Plate %

2018 Machine Learning in Radio Frequency Communications %

2017 Prediction of Bacterial Promoter Sequences using Machine Learning %