

# Josh Booth

+1 (717) 494-6466  
boothjmail@gmail.com  
Chandler, AZ  
LinkedIn

## RELEVANT WORK EXPERIENCE

### Technical Product Marketer | Microchip Technology MAY 2024 - PRESENT

- Launched 4 product families (40+ CPNs/family) in PIC16 & PIC18 product lines
- Provided technical guidance for new products and features (e.g. Configurable Logic Block in the PIC16F131xx)
- Developed strong understanding of the low-end microcontroller market (<256KB flash)
- Worked closely with PE team lead and PE team (architecture, design, test, marketing) to keep product focused on target market

### Technical Marketing Engineer | Microchip Technology JUN 2022 - MAY 2024

- Built reference designs for PIC16 and PIC18 microcontrollers (code, schematics, PCBs, documentation)
- Created technical, easy to follow documentation (videos, application notes, webpages) to educate sales engineers and customers
  - Served as the favorite technical resource for sales by creating presentations on new products and features to highlight customer benefits.
- Subject matter expert for digital peripherals (CLB, CLC, PWM, DMA, DMX, CWG) to provide design guidance to customers and sales engineers

### ML Researcher | U.S. Naval Research Lab - Space Technology Division JUN 2019 - JAN 2022

- Published new algorithmic techniques to improve image classification in remote environments with industry experts
- Primary author on paper about using machine learning in radio frequency communications, co-author for identifying protein promoter sequences
- Created supervised learning models for object detection using image classification
- Conducted data cleaning, preprocessing, and feature engineering on image and text datasets to ensure high-quality data for model training

### Robotics Systems Engineer | Booth Oil and Gas LLC. SEP 2016 - JUN 2019

- Full-stack prototype engineer to create custom solutions where commercial products weren't viable
  - Custom oil refinement pipeline, AI-driven mesh security system, crop auto-planter
- Designed and proposed viable solutions after performing feasibility study
- Mechanical development included running thermal and airflow simulations, stress tests, and kinematic calculations, and part development in CAD
- Built firmware and schematics, assembled design, then iterated through engineering process until prototype worked

## SAMPLE ENGINEERING DESIGNS

This section serves as a collection of my engineering and technical marketing abilities.

- [PEEK 3D Printer](#) (CAD, Marlin, STM32, RTOS)
- [DMX Audio Visualizer](#) (Embedded C, PCB layout, Analog Design, Serial Communication)
- [AI-Driven Security System](#) (Tensorflow, TFLearn, Python, Linux, Bash)
- [Remote-controlled Telescope Mount](#)
- [The Cold Plate](#)

## EDUCATION

### B.S. in Computer Engineering; Mathematics minor

3.98 GPA; CMPE 322/120 SUPPLEMENTAL INSTRUCTOR

Shippensburg University of Pennsylvania