

Max Destil

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Objective: Seeking full-time employment to leverage my expertise in low power PCB design and robotic arms.

EDUCATION

Rensselaer Polytechnic Institute | Troy, NY

January 2024 – December 2024

Master of Science, Electrical Engineering, 3.5
Robotics

Focus: AI / Computer Hardware Design /

Rensselaer Polytechnic Institute | Troy, NY

August 2021 – December 2023

Bachelor of Science, Electrical Engineering, 3.53
Researcher

Cum Laude / NSBE E-board member /

Rockland Community College | Suffern, NY

August 2019 – May 2021

Associate of Science, Electrical Engineering, 3.79
Tutor

NSLS Member / AI Club / Robotics Club /

PROFESSIONAL EXPERIENCE

L3Harris Technologies

Hardware Engineering Intern

Avionics Company

Grand Rapids, Michigan

May 2022 – August 2024

- Aided development of an 8-inch multi-functional stand-by prototype by designing multi-layer PCBs
- Reconfigured I/O module of T3CAS transitioning from a 4MCU to a 2MCU design for a low power unit
- Led the design, testing, and debugging of avionics PCBs for digital systems in aircraft cockpits, ensuring compliance with safety-critical standards and optimizing signal integrity and low power design

PROJECTS & EXTRACURRICULARS

3-D Printing Researcher

Lighting Research Group
2023

Undergraduate Researcher

Lighting Research Center | Troy, NY

December 2021 – May

- Lead research on BLE and low-power RF systems with custom 3D-printed antennas, enhancing wireless communication efficiency and signal integrity for connected lighting solutions

Aircraft Robotic Assembly*Robotic Arm Lead**Multidisciplinary Capstone Design***Boeing Sponsored Senior Capstone***August 2023 – December 2023*

- Integrated voice recognition control using the EasyVR3 module into a Python-based ROS environment, achieving high command accuracy and enabling voice-driven operation of a robotic arm with 6 DoF

FIR and IIR Filter Design*Graduate Course Work**Advanced VLSI Design- ECSE 6680***Rensselaer Polytechnic Institute***January 2024 – May 2024*

- Designed and implemented FIR and IIR filters with MATLAB and Verilog, optimizing for pipelining, parallel processing, and hardware efficiency on FPGA, analyzing frequency response and quantization

Real-Time Microprocessor Systems*Graduate Course Work**Microprocessor Systems- ECSE 4790***Rensselaer Polytechnic Institute***January 2024 – May 2024*

- Developed real-time microprocessor systems on STM32, including writing ISR, interfacing with RS-232 and SPI, implementing ADC for signal processing, DMA for efficiency, FreeRTOS for multiple threading

MindRace*BCI Engineer**EEG and Embedded Systems Integration***Solo Passion Project***May 2022 – Present*

- Interfaced NeuroSky TGAT1-L64 EEG sensor with Arduino and MSP432P401R for mind-controlled driving using SPI, I2C, and UART protocols to manage communication and integrate peripherals like LCDs and Bluetooth transceivers. Connection from headset to microcontroller allowed for mind-control of robotic car

SKILLS

Hardware: SystemVerilog, Verilog, Tcl, MATLAB, Simulink, Altium, Xpedition, Oscilloscope, VNA, Logic Analyzers
Software: C, C++, Python, ARM Assembly, Embedded Linux, ROS2, RTOS, TensorFlow, PyTorch, OpenCV, LaTeX
Communications: BLE, I2C, SPI, UART, RS-232, USB, TCP/IP, MQTT, ARINC 429, Ethernet, EtherCAT, TTP, CAN