Andrew Redman

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Education

Houghton College — Houghton, NY
Bachelor of Science in Applied Physics, Minor in Computer Science (GPA 3.47) — *Aug. 2013 – May 2017*

University at Buffalo — Buffalo, NY
Masters of Science in Electrical Engineering — *Spring 2026 – Present*

Experience

D3 Embedded — Henrietta, NY

Electrical Engineer — *Aug. 2017 – Present*

Sr. Systems Engineer — *Feb 2022 – Present*

- Subject-matter expert in millimeter-wave radar (60-64GHz, 76-81GHz)
- Lead team through algorithm design tasks for radar application development
- Manage technical requirements and delivery across software, hardware, and regulatory disciplineg
- Responsible for architecture decisions and technical project planning

Team Lead — *Feb 2023 – Present*

- Responsible for mentoring and managing software development team
- Lead process improvement efforts to improve efficiency and performance

Software Engineer — *Sept 2018 – Feb 2022*

- Data analysis and algorithm design for industrial, automotive, and medical applications
- Assist with on site and lab testing to evaluate mmWave radar performance
- Development of radar firmware on TI mmWave embedded platform (C7x DSP, R4F ARM)

Engineering Technician — *Aug 2017 – Sept 2018*

- Gained experience with millimeter wave radar sensors
- Gained experience with schematic design and layout, electrical testing, and software development
- Contributed to data analysis and creating test reports

Houghton College — Houghton, NY

Undergraduate Research Assistant — *January 2016 – May 2017*

- Maintained a low-pressure deposition chamber for depositing Ag thin films
- Power supply design and construction to use in sputtering for Ag thin film deposition
- Summarized work in thesis paper

NASA CSPAR — Huntsville, AL

Undergraduate Research Assistant — *Summer 2016*

- Used data science tools in Python to analyze and share data from Voyager 1
- Gained experience with regular expressions, Python, and other data science tools
- Learned about the science of heliophysics and magnetohydrodynamics

Technical Skills

Languages: Python, MATLAB, C/C++, Bash
Developer Tools: Git, Docker, VS Code, Orcad
Lab Equipment: Oscilloscope, Function Generator, 3D Printing, Arduino
Soft Skills: Leadership, Communication, Problem Solving, Public Speaking

Personal Projects

Amateur Radio Operator | *RF Spectrum, SW Design* — March 2025 – Present

- Licensed amateur radio operator
- Working on repurposing 60/70GHz automotive radar equipment as amateur communication radio
- Antenna design for HF/VHF radios
- Construction of fox hunt radio transmitter

Home Server | *Docker, Git, Arduino, Networking* — May 2021 – Present

- Manage a personal server for backups and home projects
- Using Docker containers to run SAMBA file share, reverse proxy, MQTT, VPN, network monitoring