

Owen E. Miller

Electrical Engineer - *Current DoD Secret Clearance*

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EDUCATION

B.S. Electrical Engineering · University of Maryland, College Park
College Park, MD

May 2027
GPA: 3.2

EXPERIENCE

Test & Electrical Engineering Intern · Lockheed Martin RMS
Syracuse, New York

June 2025 - Present

- Part of the Special Test Equipment (STE) group managing the design and sustainment of test stations for ground base radars (GBAS), advanced hawkeye (AHE), and ocean programs.
- Systems Migration** - Implemented migration of 28 radar test stations from Windows 10 to Windows 11, completing the project 50% under \$250K expected cost and ahead of end-of-life deadline
 - Resolved driver conflicts, specified and procured legacy hardware replacements, and repaired failures in legacy test software
 - Ensured production continuity throughout upgrade by coordinating station downtime windows with manufacturing and delivering weekly progress standups to program management
- RF & Test Engineering** - Performed daily troubleshooting of radar test stations, diagnosing instrumentation issues including spurious and out-of-band emissions, calibration failures, thermal and power anomalies, and software breakages
 - Traced chronic RF amplifier failure to a 4V undervolt against datasheet spec, eliminating \$6,600 per year in hardware costs
 - Designed and implemented interface cable and refactored test software to migrate a critical radar subsystem test from a single unsupported station to 3 actively maintained stations, eliminating the subsystem's sole source of production downtime
 - Developed thermal management systems for space and RF constrained rack-mounted enclosures, reducing operating temperatures from 10C above to 10C below component maximum ratings
- Proposal Support** - Reverse engineered poorly documented radar test stations, producing accurate BOMs and drawings in support of a multi-million dollar proposal for the construction of an overseas radar test and manufacturing depot
- References:** Dan St. Phillips: daniel.j.st.phillips@lmco.com & Mark Getbehead: mark.a.getbehead@lmco.com

Electrical Team Member · UMDLoop, University of Maryland
College Park, MD

Sep 2023 – May 2024

- Architected a semi-autonomous ground station for rover command and control in Mars-like, communication-denied environments
 - Coordinated with subteams to define system interfaces, data constraints, operational modes, and RF requirements
 - Designed an H-bridge servo driver PCB for directional antenna control and implemented an RTK-GPS system for precise navigation

Garden Center Associate · Lowe's Home Improvement
Oaks, Pennsylvania

Summer 2023

PROJECTS

Autonomous Acoustic Sensor Network · Personal Project

In Progress

- Designing and constructing a solar-powered acoustic sensor network for bird species ID, implementing local DSP noise filtering on an ESP32 and LoRa burst transmission to a Raspberry Pi ground station running BirdNET across multiple nodes

Hypersonic Target Tracking Simulation · Lockheed IWSS Intern Project

Summer 2025

- Developed hypersonic target tracking simulation in MATLAB, implementing a Kalman filter for noisy trajectory estimation and training a neural network across thousands of simulation runs, achieving a 30% reduction in target acquisition time

VESP 2.0M Microprogrammed Processor · Personal Project

Spring 2026

- Implemented a 16-instruction microprogrammed processor in Verilog on a Basys 3 FPGA, designing a micro-sequencer and 1024-word microstore to replace hardwired FSM control logic

Autonomous Drone · Personal Project

2020 - Present

TECHNICAL SKILLS

Programming	C, C++, Java, Python, Verilog, MATLAB
EDA & CAD	Altium Designer, pSpice, Creo, Creo Simulation, AutoCAD
Test & Meas.	PNA/VNA, oscilloscopes, signal generators, RF power meters, DMMs
Software	LabVIEW, HTBasic, NI-Products, EPDM, Git, SVN
Systems	Linux/Unix, managed switches, firewall configuration
Hardware	RF systems design, PCB design, FPGA development, 3D printing

ADDITIONAL

Volunteer · Perkiomen Watershed Conservancy

Aug 2018 – Present

Interests · Gravel cycling, running, swimming, gardening