JOHN KOCHENSPARGER

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Interim Secret Security Clearance

Education

Ohio University | Athens, OH — Graduation: May 2026
Bachelor of Science in Electrical Engineering

SKILLS

Technical: Soldering (iron, hot-air), Cable fabrication.
Design: Altium, Kicad, Multisim, AutoCAD, SolidWorks, Autodesk Inventor
Computing/Programming: C, C++, Python, MATLAB, Git, LaTeX
Platforms: Windows, Linux, MacOS

EXPERIENCE

Eye Proxy LLC | Athens, OH — October 2025 – Present
Owner – Production Lead

- Filed provisional U.S. patent (2025), working to secure a U.S. design patent for a novel covert dashcam disguised as a parking pass, differentiated from traditional dashcams by its unique form factor.
- Managed member coordination, tasking, and scheduling while authoring 90%+ of all design documentation (SRR, PDR, CDR, TDP) across three major design reviews.
- Designed custom PCB integrating dual-camera modules, solar charging, motion detection, and wireless connectivity within extreme constraints (8mm thickness, −4°F to 140°F); personally contributed accelerometer circuit (ISM330DHCX via I2C), ESP32-C6 BLE streaming firmware, and full enclosure design.
- Produced a working prototype and presented at engineering expos.

AMETEK Sunpower Inc. | Athens, OH — May 2024 – April 2026
Electrical Engineering R&D Intern

- Conducted hardware and firmware testing on cryocooler controllers.
- Contributed to test reports, user manuals, technical references, manufacturing procedure documents, parts databases, BOMs.
- Monitored component lifecycles, identified replacements for NFND/obsolescent parts.
- Developed an app to automate controller manufacturing procedures and tests.

Asphalt Materials Inc. | Marietta, OH — May 2023 – Aug 2023
Plant Operator Intern

- Created 200+ valve alignment sheets for a large majority of the possible material transfers.
- Assisted a controls engineer in implementing a VFD into a PLC to control asphalt pump flow.
- Optimized the mill room layout to be more space efficient and easier to maintain.

PROJECTS

Cryotel GT Test-Load | AMETEK Sunpower Inc. — Dec 2025 – April 2026

- Developed a test-load to match the impedance and frequency characteristics of the Cryotel-GT Cryocooler.
- Determined the impedance of the cooler at max power, designed a circuit with high power resistors to match.
- Selected a heatsink that best met the requirements for the resistors.
- Designed the Test-load enclosure and created an assembly with fans, power poles, standoffs, screws.

Rocket Club Controller | Ohio University Rocket Club — Oct 2025 – Dec 2025

- Led avionics team component selection based on physical constraints and operational requirements; selected SparkFun Things+ NINA-B306 for telemetry data acquisition.
- Developed firmware to capture and log flight data to SD card for five different L1 rocket launches.
- Built Python post-processing pipeline to analyze 200k–300k lines of sensor data per flight.

CryoTel DS30 Startup Testing | AMETEK Sunpower Inc. June 2025 – Aug 2025

- Discovered a set of initial conditions that resulted in operation failure with our production DS30.
- Analyzed events using an oscilloscope to determine the source of the failure.
- Worked with technical manager to test and implement a fully reliable solution.

IEC/EN 61000-4-2 Compliance Testing (ESD) | AMETEK Sunpower Inc. Aug 2024 – June 2025

- Used an ESD16 16.5kV simulator for controlled electrostatic discharges (ESD) on full cryocooler systems.
- Repaired components and modified PCB designs to prevent failures.
- Iterated tests until the controller passed a set number of consecutive trials.
- Captured and analyzed events using an oscilloscope to trigger on overcurrents during testing.
- Fully tested two different cryocooler controller systems.

Released a Controller Firmware Version | AMETEK Sunpower Inc. Jan 2025 – Jan 2025

- Updated firmware for CryoTel GEN II.
- Introduced a configurable mode to ramp and sustain full power on the CryoTel GT cryocooler, fulfilling a customer request.

Consolidated Controller Setup Menu App | AMETEK Sunpower Inc. June 2024 – May 2026

- Developed Python scripts to validate controller configurations, temperature sensor calibration, interpret data, provide feedback, and log results for QA, RMA, and MRB troubleshooting.
- Built controller setup scripts that auto-detect board revision, firmware version, COM port, and baud rate.
- Delivered an interactive controller setup menu with 358 automated procedures, virtually eliminating customer-facing misconfiguration.
- Significantly reduced human-error in our manufacturing process, whilst reducing the time each procedure takes by 95%. This greatly affected our production volume flow, allowing freed up time for production team to evaluate RMAs and MRBs with other scripts I authored.

Mill Layout Design | Asphalt Materials Inc. Summer 2023

- Collaborated with an off-site project manager on a new mill layout design.
- Designed isometric sketches detailing pipe layouts, insertion points, and measurements.
- Proposed a modular, space-efficient, and safer design approved by the project manager.

Valve Alignment Sheets | Asphalt Materials Inc. Summer 2023

- Made 200+ procedure documents for different material transfers.
- Instructions contained information on what valves needed to be open and closed.
- Adhered to OSHA standards. Procedures were safe and most efficient.

National Infrastructure Technician Training Workshop | Ohio University Summer 2023

- Toured with a Fiber Optics installation and maintenance company.
- Gained firsthand experience splicing fiber and interpreting schematics.

INVOLVEMENT EXPERIENCE

- **Rocket Club |** *Avionics Lead (25-26)* Aug 2024 – May 2026
- **Institute of Electrical and Electronics Engineers |** *Member* Aug 2024 – May 2026
- **Campus Crusade for Christ |** *Sound Team* Oct 2023 – May 2026