Seth Palkki

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SUMMARY

Electrical Engineering Student with 4+ years of hands-on experience in power generation, MV/LV distribution, and instrumentation. Proven expertise in schematics interpretation, distribution system design, and electrical testing. Strong foundation in both hardware and software development for power and control systems.

EDUCATION

MSE, Electrical Engineering (Electronic & Mixed-Signal Circuit Design) Expected May 2026
Arizona State University Tempe, AZ

- GPA: 3.5
- Accelerated Master's Program

BSE, Electrical Engineering (Power & Energy Systems) May 2025
Arizona State University Tempe, AZ

- GPA: 3.77
- Graduated Magna Cum Laude

TECHNICAL SKILLS

Programming: Python, Java, Dart, Verilog, SystemVerilog, Arduino, Ladder Logic (Allen Bradley PLCs)
Software: MATLAB, LTSpice, PLECS, ModelSim, Quartus, Cadence, Windows
Simulation & Tools: OpenDSS, MySQL, RESTful APIs, Git

PROFESSIONAL EXPERIENCE

Power Plant Supervisor **May 2024 - Present**
U.S. Army **Israel**

- Develops standardized operations, maintenance, and safety protocols for a 5.4 MW diesel engine power plant.
- Supervises and leads a team of 12 employees, ensuring smooth operations, adherence to safety protocols, and timely completion of tasks.
- Serves as the subject matter expert for power plant operations and customer liaison, providing technical guidance and expertise to optimize operations, troubleshoot complex issues, and ensure regulatory compliance and customer satisfaction.
- Manages power plant maintenance program for over $2 million worth of equipment.
- Collaborates with host nation vendors to procure essential supplies, ensuring uninterrupted operations and reliable power for a critical U.S. asset.

Power Station Instrumentation Technician **August 2021 – May 2024**
U.S. Army Prime Power, U.S. Army Corps of Engineers **Fort Bragg, NC**

- Initiated weekly preventative maintenance for Deployable Power Generation and Distribution System including 4 x 840 kW diesel engine generators.
- Led 6–person team for annual servicing of 4 x 840kW mobile diesel generators, 3 switch gear units, and 4 transformers.
- Directed power assessment teams under the National Response Framework (NRF) and FEMA during U.S. disaster relief operations.
- Collaborated with local government offices to assess and restore power to critical facilities during natural disasters.
- Managed a 13-person maintenance team supporting 11 key power station assets.

PROJECTS

GridScout **August 2024 – May 2025**
Senior Design Project **Tempe, AZ**

- Developed a mobile backend system to help utility technicians map electrical distribution networks for improved modeling and simulation.
- Built the user interface in Dart (Flutter) and a RESTful API backend in Python to communicate with a MySQL database and OpenDSS simulation engine.
- Integrated field technician inputs with cloud-based data storage to support real-time digital grid modeling.

Project Sprout **August 2021 - November 2021**
Class Project **Tempe, AZ**

- Created 5 individual drones to work together as a swarm and farm a field of crops.
- Created Arduino code with an array of sensors to program each drone for its specific task.

Hot Dog Vending Machine **May 2021 - July 2021**
Instrumentation Technician Class Project **Fort Leonard Wood, MO**

- Programmed an Allen Bradley PLC with Ladder Logic to control a food vending process in an assembly-line fashion.
- Utilized multiple inputs, sensors, and displays to make a user-friendly machine interface with 5 options for user customization of the product.

Microwave Spot Welder **August 2020 - November 2020**
Prime Power Class Project **Fort Leonard Wood, MO**

- Collaborated with 4 other students to build a spot welder from transformers out of a used microwave oven, applying knowledge of AC circuits, transformers, and electrical material ratings.

CO-CURRICULAR ACTIVITIES

AVO Training, Fort Bragg, NC, *Student* **August 2021 – May 2024**

- Regularly attended industry-led Training to refresh skills and knowledge and keep up to date on emerging technologies and procedures.

CERTIFICATIONS AND AWARDS

Certifications:

- NETA Level 1
- Medium Voltage Cable Splicing & Termination
- Substation Maintenance & Safety
- CPR

Awards:

- **USACE Chief of Engineers Challenge Coin** for exceptional performance
- **Distinguished Honor Graduate**, U.S. Army Prime Power School, Class 003-20 (1st of 25)
- **Distinguished Leader Graduate**, Prime Power Advanced Leaders Course, Class 003-24 (1st of 13)