

DAN ABIDOV

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EDUCATION

Kettering University– Flint, MI

2021 – 2025

BSE in Computer Engineering, Electrical Engineering Minor – GPA: 3.04

Graduated December 2025

- Extracurriculars – Makerspace Leader, SAE Aero Design, Phi Gamma Delta Chapter Leader
- Relevant Coursework: Real-Time Embedded Systems, PCB Design and Testing, Microcomputers, Internet of Things, Electronics & Circuits, Time Signals and Systems
- Capstone Project: 4 Player Wireless Game Station (RP2040 and NRF24 Based)
- Senior Thesis: Investigation & Implementation of an Automatic Cable and Harness Tester (Through Konrad Technologies)

PROFESSIONAL EXPERIENCE

Spherea (Formerly Konrad Technologies) – Farmington Hills, MI

Systems Engineer

December 2025 – Present

Systems Engineering Co-Op

June 2023 – December 2025

- Programmed test system architecture and device drivers in NI LabVIEW
- Integrated hardware and software for automated test systems ensuring high accuracy
- Conducted self-tests and manual verification to validate hardware system performance
- Automated the manual Cable Verification process, improving quality and time efficiency (Thesis)
- Core Skills: LabVIEW, Software Development, Test Engineering, Requirements Analysis

Actalent Services – Troy, MI

Aug 2021 – Mar 2023

Hardware Test Engineer

- Designed high-density 6 layer fiber optic PCBs using Altium Designer
- Ported FreeRTOS based code to updated microcontroller hardware platforms
- Implemented an asset tracking system to enhance operational efficiency
- Core Skills: PCB Design, Altium, Embedded Software, Digital Signal Design

Kettering University – Flint, MI

Nov 2021 – December 2025

Makerspace Student Lead

- Upgraded campus equipment by introducing high-performance 3D printers and workflows
- Organized technical workshops to educate students on 3D printing and prototyping
- Designed a standardized document management system for improved operational consistency
- Established a circuit prototyping station for PCB design and hands-on learning
- Managed procurement processes, including budget proposals and supplier coordination

TECHNICAL PROJECTS

High Power Pulse Generator PCB

- High Power Switching Spark Generator for Electrical Discharge Machining
- Utilized Adaptive Voltage Positioning and Peak Current Mode Control for Spark Control
- Debugged initial revision of PCB and designed further iterations.

High Fidelity Digital to Analog Converter

- USB Interface using XMOS MCU as I2S Bridge
- Utilized Sabre Audio ES9039 DAC and designed an amplification stage in LTspice
- Designed and fabricated low noise mixed signal PCB

TECHNICAL SKILLS

Hardware & PCB Design: PCB Prototyping, Altium Designer, KiCad, Cable & Harness Design, Hardware Debugging, Electrical Analysis

Embedded Systems & Firmware: C/C++ , STM32, ESP32, RP, XMOS, Peripheral Driver Development, Object Oriented Programming, Firmware Debugging, Real-Time Systems, LabVIEW DQMH

Software & Tools: NI LabVIEW, VS Code, Azure DevOps, Git, SVN, MATLAB, MS Office, CAD

Testing & Engineering Systems: NI PXIe & cDAQ Configuration, Automated Testing (LabVIEW), DAQ Driver Integration, Requirements Traceability

Prototyping & Fabrication: PCBA Assembly, SMD Bring-up, 3D Printing, System Assembly, Equipment Maintenance