

# Eyad Asfahani

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## Education

**University of Michigan – Dearborn | Dearborn, MI**

*September 2021 – April 2025*

Bachelor of Science in Electrical Engineering, GPA 3.60

## Technical Skills

**Programming:** C, C++, Python, Java, MATLAB, Simulink, Git, Jupyter Notebook, VS Code, Assembly, HTML

**Platforms:** Windows, Arduino, ESP-IDF, Visual Studio, openFrameworks, GitHub, PlatformIO, Claude API

**Hardware:** CAN Bus Interfaces, ESP32, Arduino Uno, HCS12, TM4C123G, PCM5102A DAC, PAM8403 Amplifier, Logic Gates, Multiplexers, Flip-Flops, LCDs, Oscilloscopes, Power Supplies, Breadboards, SPI/I2C Communication

**Software:** CANalyzer, LTSpice, Quartus Prime, Android Studio, Ultimaker Cura

**Communication:** Design proposals, technical reports, instruction manuals, presentations (large and small audiences), cross-functional team collaboration

## Professional Experience

**Metro Engineering Solutions | Northville, MI**

*August 2025 – Present*

**Low Voltage Distribution Engineer**

- Designed low-voltage distribution projects supporting transformer upgrades, pole replacements, and electric infrastructure improvements across Michigan.
- Perform pole loading analysis, voltage calculations, and verify NESC compliance to ensure designs meet Consumers Energy engineering and safety standards.
- Produce detailed construction prints and technical documentation used by field crews for installation and system upgrades.
- Coordinate with utility planners, field engineers, and project managers to resolve design constraints and maintain project schedules across multiple concurrent projects.
- Within 9 months, progressed into mentoring and training new hires on utility design workflows, construction standards, and project documentation procedures to support team efficiency and onboarding.

**NXT Gen Entertainment | Dearborn Heights, MI**

*April 2022 – Present*

**Audio-Visual Systems Lead**

- Led AV teams for 50+ live events/year, installing and programming lighting, sound, and video systems.
- Prepared technical proposals and collaborated with clients to align system capabilities with creative goals.

## Projects

**Deal Desk**

*Summer 2026*

**Role: Founder & Full-Stack Developer**

- Built a multi-agent Python system on the Anthropic Claude API that finds, verifies, and posts Amazon deals to X on its own, pulling from Keepa, the Amazon Creators API, and Typefully, with cost optimizations that cut LLM spend ~40%.
- Wrote a rules-based trust gate that cross-checks pricing and product data before anything publishes, cutting false positives and the manual review they created.
- Built a live control dashboard (React + Three.js) that streams agent activity over Server-Sent Events, so every deal can be watched as it surfaces and approved before it goes out, backed by a local SQLite data layer.

**Smart Motorcycle Helmet**

*Fall 2024 / Winter 2025*

**Role: Team Lead | Course: Senior Design I / II**

- Developed a real-time HUD interface for navigation and alerts using a transparent OLED display
- Integrated Bluetooth profiles (ANCS, A2DP, HFP) for notifications, music playback, and hands-free calling
- Implemented battery voltage monitoring (ESP32 ADC + voltage divider) with low-voltage alerts; improved battery life by 15%.

**Multimedia Audio Processing Application**

*Winter 2025*

**Role: Full-Stack Developer | Course: Advanced Software Techniques in Computer Engineering**

- Developed a Qt/C++ desktop multimedia application with search, playback, and audio processing, integrating external APIs and Spleeter (via QProcess automation) for high-quality vocal/instrumental separation.