

Cole Mullenbach

Software Engineer & Automation Engineer

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PROFESSIONAL SUMMARY

Software Engineer specializing in automation solutions and data processing with a passion for building customized software that people actually love to use. Experienced in bridging the gap between technical complexity and user experience, with expertise in Python, MATLAB, SQL, and Linux server administration. Known for knowing when to ship fast and iterate vs. when to get it perfect.

EDUCATION

Iowa State University

Graduated

Bachelor's Degree in Software Engineering

PROFESSIONAL EXPERIENCE

Excel Engineering — Software Engineer

January 2024 – January 2025

- Develop tools for CAN bus analysis and automation pipelines
- Create customized solutions for diesel emissions testing
- Bridge technical complexity with user-friendly interfaces
- Collaborate with cross-functional teams to deliver reliable systems

Army National Guard — Infantry Mortar Squad Leader

2018 – 2024

- Led a team of 4 in field operations and precision deployment
- Developed leadership skills in high-pressure environments
- Managed mission-critical operations with attention to detail
- Demonstrated clear communication and team dynamics expertise

TECHNICAL SKILLS

Programming Languages

Python, SQL, MATLAB, Java, Bash, HTML5/CSS3/JavaScript

Web Development

Responsive Design, GitHub Pages, CI/CD, SSL/TLS, REST APIs

Mobile & Frameworks

Android development, Spring Boot, Database Design

Specializations

Diesel emissions testing, automation pipelines, homelab management

Systems & Infrastructure

Linux server administration, Proxmox, TrueNAS, Docker, OPNsense

Automation & Data

n8n automation, PostgreSQL, CAN-BUS analysis, Data Analysis

3D Design & Printing

Fusion 360, Cura, Orca Slicer, CAD Design, 3D Printing