

# William Hosler

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## SUMMARY

B.S. **Computer Engineering** with strong **CS fundamentals** (object-oriented design, data structures, algorithms) and **production software** in **Python** and **JavaScript/TypeScript**. Delivers **enterprise-style applications** (React, Flask, PostgreSQL, REST, automated tests, Git-based workflows) and works **on the plant side: Modbus, OPC UA, MQTT**, PLC-adjacent integration, **commissioning and startup**, and **AutoCAD** shopfloor layout. Comfortable collaborating in cross-functional teams, mentoring peers, and supporting **customer-site** technical work.

## EDUCATION

**Purdue University**, West Lafayette, IN

Sep 2020 – Dec 2024

- Bachelor of Science, **Computer Engineering**.

### Relevant Coursework:

- **Compilers:** *Designing and building compilers and translators, including topics like language organization, parsing, code generation, and optimization, with a practical focus on implementing a subset of C.*
- **Embedded Systems Design:** *Designed and programmed embedded systems using the ESP32 microcontroller and MicroPython, including interfacing with sensors, implementing communication protocols (I2C, SPI, UART), and controlling peripherals (PWM, ADC, DAC) for real-time IoT applications.*
- **Computer Networking:** *Fundamental concepts of internet principles and protocols, including network architecture, routing, congestion control, security, and software-defined networking.*
- **Artificial Intelligence:** *Intermediate machine learning, including unsupervised learning, probabilistic models, clustering, density estimation, representation learning, and deep generative models.*

## SKILLS

- **Software:** Python, JavaScript/TypeScript, SQL; React (Vite), Flask, REST; PostgreSQL; Git/GitHub; GitHub Actions; pytest, Vitest, Playwright; Linux; Docker/Kubernetes exposure; OIDC/JWT and RBAC patterns; governed API integrations (**Model Context Protocol** assistants with human approval gates).
- **Industrial:** Modbus, OPC UA, MQTT; PLC/peripheral integration; commissioning and structured troubleshooting; machine electrical concepts from coursework and field work; **AutoCAD** 2D shopfloor layout; Microsoft Office (Word, Excel, PowerPoint, Outlook).

## EXPERIENCE

**Automation Technology & Integration Lead, Manufacturing Automation Group LLC**,  
Detroit, MI

Dec 2024 – May 2026

- **Enterprise applications:** React/Flask/PostgreSQL products with enterprise SSO, database RBAC, REST services, migrations, and path-filtered CI (pytest, Vitest, production builds); internal billing/time platform with validation, reporting, and assistant-style API integrations with guardrailed writes.
- **Controls integration & field delivery:** Modbus, OPC UA, and MQTT with PLC/peripheral equipment; readiness reviews, commissioning, and launch support for tier-one automotive programs; **AutoCAD** layouts for shopfloor/cell planning; Python tooling and testing for autonomous mobile robot and material-flow systems.
- **Organization & mentorship:** third hire; helped scale MAG to **20+** people by Apr. 2026 and **\$1M+** first-year revenue; mentored engineers on standards, reviews, and milestone-driven delivery.

**Molecular ML Research**, Purdue University

Jun 2024 – Jan 2025

- Python research pipelines; graph models; reproducible evaluation vs. reference simulations.

**Internships**—*Trava Cybersecurity*, Indianapolis, IN (Summer 2022); *Villa Homes*, San Francisco, CA (2021–22)

- **Trava:** React, Docker, Kubernetes; automated CRM sync; production migrations for many services.
- **Villa:** factory-facing analytics; automated ETL improving tracked quality metrics by ~90%.