Gabriel Halstead



Indianapolis, IN

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PROFESSIONAL SUMMARY

Junior Computer Science student at Purdue University. Researcher focusing on embedded systems in agricultural IoT and Assistant teacher for Sophomore level Computer Science course. Highly accustomed to learning and adapting quickly, excitedly working on personal projects. 3+ years of experience in software development and data analytics. High emphasis on working hard and keeping trust.

EDUCATION

Computer Science, B.S.

Jun 2023 - May 2027

Purdue University, GPA: 3.2

West Lafayette

WORK EXPERIENCE

Research Intern

Jan 2025 - Present

Purdue Axilab

West Lafayette

- Developing full stack software to pipeline 100,000+ data entries from our in-field sensors to our web API.
- Designing robotics systems based on the Farm-ng Amiga, aiming for more sustainable methods.
- Focusing on Open-source, repeatable solutions that help farmers and researchers.
- Maintaining on-premises server, managing resources including databases, LLMs, internet domain tools.

Teaching Assistant for CS 252

Jun 2025 - Present

Purdue Computer Science Dept.

West Lafayette

- Teaching and grading 200+ students through Purdue's Systems Programming course.
- Developing course material, writing labs, redesigning attendance tools.

Mar 2024 - Aug 2025 **Lead Mentor**

Purdue Office of Summer and Winter Sessions

West Lafayette

Whitestown, IN

- Asked to return, leading team of 8 college student mentors, each leading 8-12 high school students.
- Maintaining open communication with team, resolving schedule conflicts as they arise.

Team Lead Jun 2022 - Jun 2024

PROJECTS

Chick-fil-A

Smart Small Farm | Angular, embedded

Jan 2025 - Present

- Experimenting with useful information technology for small scale farms, collecting feedback from farmers.
- Ongoing research, keeping documentation up to date and writing base code for our web application.

Personal Server | Nginx, server maintenance

May 2025 - Jul 2025

- A self-teaching experience, learning hardware and Linux to get a raspberry pi online.
- Currently running multiple websites, a Minecraft server for friends, and ssh for any on-the-go development needs.

TECHNICAL SKILLS

Languages | Python, JavaScript, Java, C/C++, SQL, R, HTML, ASM x86, Bash

Frameworks | Angular, MQTTX, Nginx, Pandas, Beautiful Soup

Developer Tools | Git, Docker, Visual Studio Code, PyCharm, Blender, ArcGIS Pro, Unix/Linux, Google Console Relevant courses | Problem Solving and OOP, C Programming, Foundations of Computer Science, Data Structures and Algorithms, Computer Architecture, Systems Programming, Operating Systems, Software Testing, Embedded Systems, Statistical Methods, Spatial Ecology, Linear Algebra