

DAVID FALL

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PROFILE

- Dedicated and highly skilled Computer Engineering student with a strong foundation in software development and embedded systems.

EDUCATION

Purdue University, College of Engineering

B.S. Computer Engineering, GPA 3.99/4.0

- Goss Scholars Engineering Community
- Purdue National Merit Finalist Scholarship 2022, 2023, 2024

West Lafayette, IN

July 2022 – May 2025

PROFESSIONAL EXPERIENCE

Honda Development and Manufacturing of America

In-Vehicle Infotainment Software Development and Validation Intern

- Develop generative AI models for detecting duplicate bug and issue investigation tickets
- Developed mock server to demonstrate AI detection of duplicate reports during the filing of a report (prediction runtime under five seconds)
- Test infotainment and software systems through CAN and ethernet systems monitoring

Raymond, Ohio

May 2024 – August 2024

Purdue University College of Engineering

Teaching Assistant, Electrical and Computer Engineering

- Assist in lab instruction and supervision for students in the School of Electrical and Computer Engineering

West Lafayette, IN

December 2023 – January 2025

Undergraduate Research Assistant

- Researched AI tools, potential opportunities in AI for advanced reactor simulation through scientific literature
- Utilized NLP architecture for obfuscating sensitive text while preserving mutual information value for class labels

West Lafayette, IN

June 2023 – December 2023

PROJECTS

Vulu – Fitness & Social App | Lead Engineer and Founder

- Designed, built, and launched a social media application available on iOS and Android (information at <https://vulu.app>)
- Developed an instant messaging service using socket.io
- Implemented an AI-driven recommendation algorithm using image and text embeddings
- Optimized cloud infrastructure for scalability using AWS EC2, Lambda, S3, and more

July 2024 – Present

Embedded Skee Ball | Team Leader

- Developing electronic rendition of popular game “skee-ball” for availability to users with disabilities
- Leading a team of four engineers to ensure optimal progress and integration
- Developed full two-layer PCB, embedded software, and mechanical design of the device
- Maintain public information and documentation at <https://engineering.purdue.edu/477grp1>

November 2024 – Present

LEADERSHIP ACTIVITIES, AFFILIATIONS, HONORS

Alpha Tau Omega, Gamma Omicron Chapter

President

- Led the fraternity (150 members) in meetings, rituals, and oversee the judicial board
- Aided in construction planning and fundraising (projected to be > \$3 million) for new house

December 2023 – August 2024

Alpha Kappa Psi, Pi Omega Chapter

- Initiated member of the largest professional fraternity in the world for networking and professional development purposes

SKILLS AND COURSEWORK

- Programming languages: Python, C, C++, JavaScript, Assembly
- Libraries/frameworks: React, Tensorflow, PyTorch, pandas, numpy, scikit-learn, SQL and noSQL, RESTful APIs, Git
- Other technical skills: RISC-V ISA, Verilog, CAD (NX), SPICE, CAN (CANoe), Atlassian products, UML, PCB design (KiCad)
- Relevant coursework: OOP in C++, Data Structures, Microprocessor Systems and Interfacing, Software for Embedded Systems, Digital System Design, Advanced C Programming, Python for Data Science, Discrete Mathematics, Intro to Artificial Intelligence, Operating Systems Engineering, Intro to Computer Security