

Huy Vu

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EDUCATION

Purdue University

Expected Graduation: Fall 2026

Bachelor of Science in Computer Science, Minor in Mathematics

GPA: 3.6/4.0

- **Awards:** Dean's List & Semester Honors (2023 - 2024)
- **Relevant Coursework:** Linear Algebra, Object-Oriented Programming, Discrete Mathematics, Data Structures & Algorithms, Computer Architecture, Systems Programming

EXPERIENCE

Purdue University

Aug. 2024 – Present

Undergraduate Teaching Assistant

West Lafayette, IN

- Developed and maintained automated JUnit test cases for a class of 400 students, reducing the time to grade weekly assignments by 30%.
- Held two lab sessions to assist **50+ students** in debugging Java applications and providing clarity on course topics about Object-Oriented Programming and Concurrency through Ed Discussion.

VIPER Lab

Aug. 2024 – Dec. 2024

Undergraduate Research Assistant

West Lafayette, IN

- Streamlined data synchronization and transmission between the Android app and the backend server over HTTPS, **reducing data transfer latency to 150ms.**
- Reduced background interference using Sobel edge detection and Otsu's thresholding, **achieving the accuracy of 85%** in training K-Nearest Neighbor model for binary classification to identify fruit types.

Hyperlogy

May. 2024 – Jul. 2024

Software Engineer Intern

Hanoi, VN

- Developed RESTful APIs in TypeScript and Nest.js to manage user time requests and redesigned features of the app with Figma.
- Implemented Firebase for real-time data management for 1,000+ user records, optimizing data querying capabilities and **reducing response time by 20%.**

Caterpillar Inc.

Aug. 2023 – May 2024

Data Science Researcher

West Lafayette, IN

- Created a robust data pipeline for 100+ risk factors affecting the company's supply chain from open-source data.
- Utilized Excel, Pandas and Numpy in data preprocessing techniques to create a country-year level master table, **enhancing the effectiveness of machine learning model training by 15%.**
- Forecasted time series data by using **Python's PyCaret** and visualized the result with Power BI dashboards.

PROJECTS

HuyChatbot | *TypeScript, JavaScript, HTML/CSS, Node.js, Express.js*

Jun. 2025 – Present

- Developing personal AI Chatbot utilizing OpenAI's text embedding API and Retrieval Augmented Generation (RAG) for contextual question answering.
- Implementing backend data storage using Pinecone for vector storage and Prisma for API integration.

Mentis.AI | *HTML/CSS, JavaScript, Node.js, React*

Mar. 2025 – Jun. 2025

- Led a team of 5 using Agile methodologies to build a fullstack web application that provide emotional support with backend services using PostgreSQL to manage user journaling entries and daily mood.
- Integrated Spotify API to provide personalized song recommendations based on mood, boosting user engagement by 30%.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, JavaScript, TypeScript, HTML/CSS, SQL, R

Frameworks & Libraries: React, Node.js, Express.js, Next.js, REST API, Flask, Firebase, OpenCV, GraphQL

Tools: Git, Github, IntelliJ, VS Code, Jupyter Notebook, Android Studio, Linux, AWS, MongoDB, Docker, Azure