

Dhwanil Chauhan

chauha56@purdue.edu • +1 (669) 262-8115 • [LinkedIn](#) • [GitHub](#) • [Portfolio](#)

EXPERIENCE

Center of Innovation through Visualization and Simulation, Purdue University

Indiana, USA

Student AI Researcher

January 2025 – Present

- Built **AIAAI**, an **LLM**-powered chatbot for incident reporting that extracts structured data from free-text narratives using **local models** and **RAG**, reducing manual corrections by **60%**
- Enhanced response quality and input accuracy through **iterative prompt optimization** and integration of **historical incident data**
- Designed and deployed a real-time **AI Hazard Recognition System** using **YOLOv8** and **contextual zone logic** to proactively detect safety violations in steel manufacturing
- Developed a modular **FastAPI + React** platform for visual alerts, zone monitoring, and multi-camera tracking, improving safety response time and auditability

Untapped Ventures

California, USA

AI Venture Analyst Intern

July 2025 – Present

- Designed an AI-powered founder intake system simulating first meetings, replacing static forms with **conversational LLM workflows**
- Used **local LLMs** and **RAG** to extract structured data, auto-generate deal summaries, and apply rubric-based scoring for early-stage startups
- Streamlined founder evaluation, reducing manual screening time by **60%** and improving consistency in decision-making

PROJECTS

AI for Localized Flood Scenario Modeling | Personal Project

June 2025

- Building AI-driven **scenario modeling workflows** to predict flood risks at the block and city level, enabling **localized decision-making** for disaster response and urban planning
- Aiming to improve **early hazard identification by 40%** and support **scenario testing for infrastructure resilience** using a combination of ML, DL, and GNN models on **6+ spatial and environmental inputs**

Career Prediction Tool | Purdue University

August 2024

- Built a system to analyze user habits using **Gaussian Naïve Bayes** to recommend a suitable career path and provide a road map with **85% accuracy**
- Utilized **Django** framework to provide the **UI** of the system and used **SQLite** to store users past analysis

AI-Powered Lip-Reading Model | Personal Project

March 2024

- Developed a **deep learning-based speech processing model** that predicts spoken words from **lip movements**, achieving **85.4% accuracy** on the GRID dataset
- Utilized **sequence modeling** and **neural networks** to enhance **silent speech recognition**, improving efficiency by **40% compared to phoneme-based approaches**

Health Diagnostic Assistant | Personal Project

January 2024

- Developed a multi-disease detection system for diabetes, heart disease, kidney disease, and pneumonia using **SVM**, **Decision Tree**, and **Random Forest**
- Used **VGG-19 CNN** model for malaria and pneumonia classification

Intrusion Detection System | [Published in IEEE](#)

August 2023

- Designed a machine learning-based **intrusion detection system (IDS)** for **IoT** networks using **Random Forest**, **Decision Tree**, and **Support Vector Classifiers** on the CICIDS-17 dataset
- Achieved **96.6% accuracy** with the Random Forest model, outperforming traditional IDS techniques in anomaly detection for IoT security

SKILL

- **Programming Languages:** Python, Java, C, C++, C#, JavaScript, TypeScript, R
- **Frameworks/Libraries:** Django, Flask, TensorFlow, PyTorch, Streamlit, OpenCV, NLTK, Ollama
- **Tools/Technologies:** Git, SQL, MongoDB, PostgreSQL, NoSQL
- **Operating Systems:** Microsoft Windows, Linux (Ubuntu, Kali)
- **Specializations:** Full-stack development, Machine Learning, Object-Oriented Programming, Database Design, Data Visualization, API Development, Neural Network Model Training, Generative AI, Model Deployment, Feature Engineering, Power BI

EDUCATION

Purdue University | Indiana, USA

May 2026

Master of Science, Computer Science | 3.67/4

Relevant Coursework: Machine Learning, Cybersecurity, Data Structures & Algorithms, Deep Learning

PUBLICATION

I have published around 6 papers in the field of **Artificial Intelligence**, **Machine Learning**, **Deep Learning** and **Cyber Security**. Here is the link to my publications at [Google Scholar](#).