# Ayush Jadhav

3836 Maple Grove Dr., Madison WI 53719 | (608)-234-3685 | ayushrjadhav14@gmail.com | ayushjadhav.com

## SUMMARY

AI-focused IT Analyst with experience developing enterprise applications, building LLM-powered tools, and improving operational system reliability. Strong foundation in generative AI, machine learning, backend development and cloud concepts. Currently an Associate IT Analyst at WEC Energy Group contributing to applications reliability, workflow automation, and cross-team technical support.

## EDUCATION

University of Wisconsin-Madison
*B.S Computer Engineering and Computer Sciences, May 2025*

Certifications (in progress): Stanford Machine Learning Specialization, IBM Agentic AI Professional Certificate, IBM AI Developer, NVIDIA AI Infrastructure and Operations, Google IT Automation with Python

## EXPERIENCE

WEC Energy Group, Milwaukee Wisconsin
*Associate IT Analyst / Student Intern, May 2023 - Present*

- Implement software solutions to resolve problem cases, improve backend workflows, and modernize legacy logic across PCAD and OMS.
- Rebuilt the Electric Operations Financial Capital Model form (PMO 419), updating ColdFusion/SQL logic and modifying the OMS API and integrating new STORMS API functionality.
- Support the rollout of Dynatrace, configuring dashboards and alert rules to replace legacy observability tools.
- Supported enterprise workflows used for outage management and dispatch, giving strong domain insight for future AI/automation initiatives.
- Collaborate with developers, business analysts, and operations groups to translate business requirements into scalable technical changes.
- Work within an Agile framework, participating in sprint planning, conducting peer code reviews, and delivering solutions in a CI/CD pipeline.

Alvarado Sustainability Scholars, UW-Madison
*Undergraduate Researcher - AI & ML Analysis of Wildfire Risk, Optimal Power Shutoffs, September 2024 – May 2025*

- Collaborated with advisors from UW-Madison, Georgia Tech, and Lawrence Livermore National Laboratory to develop strategies for improving grid resilience in wildfire-prone regions using machine learning methods.
- Processed and analyzed 8500+ hourly wildfire ignition risk and line-loading observations using Python (Pandas, NumPy) and Julia.
- Developed exploratory machine-learning pipelines with Scikit-Learn to evaluate predictors of wildfire risk, line loading, and utility shutoff decisions.
- Conducted feature engineering, correlation studies, and statistical modeling to identify drivers of unsafe grid conditions.
- Prototyped ML-based shutoff decision models that improved speed and performance compared to threshold-based approaches.

Associated Students of Madison, UW-Madison
*Internal Affairs Chair, Engineering Representative, March 2023 – May 2025*

- Represented engineering students in university policy discussions and academic initiatives.

Bradley Learning Community, UW- Madison
*Lead Peer Mentor, Teaching Assistant, September 2022 – May 2025*

- Taught first and second year seminar courses and supervised a team of peer mentors supporting 250+ students.

## PROJECTS

Gradey - AI Chatbot for Course Planning (SQL + REST + LLM)

- Built an AI-powered academic planning assistant integrating SQL, REST APIs and natural-language querying to generate schedules, retrieve professor ratings, and calculate GPA.

Wischeduler - AI-Powered Scheduling Agent (ECE 454 - Capstone Project)

- Designed and developed an AI-powered scheduling app with an intelligent chatbot interface; won 1st Place at the ECE Capstone Design Open House.

AI Incident Triage Assistant (Azure Functions + Azure OpenAI)

- Developed a serverless incident triage API that analyzes incident or ticket text and predicts severity, category, team routing, and recommended next steps using Azure OpenAI.

AI Outage Explanation Generator (AWS Lambda + LLM)

- Built a serverless API that converts outage data into clear customer-facing outage explanations using an LLM-based prompt engineering.

CNN Image Classifier (TensorFlow/PyTorch)

- Developed and optimized a CNN on CIFAR-10 using TensorFlow/PyTorch with hyperparameter tuning and automated testing pipelines.

## SKILLS & TOOLS

**AI & Machine Learning:** Generative AI, CNNs, LLMs, AI Agents, Predictive Modeling, Feature Engineering, Model Evaluation, Neural Networks, Transformers.
**Languages:** Java, Python, C++, C#, JavaScript, CSS, SQL, Verilog, React, HTML, Julia, Bash
**Frameworks:** TensorFlow, PyTorch, scikit-learn, OpenCV, .NET, REST APIs, Groovy, AWS Lambda
**Cloud:** AWS, Azure AI Services, Containers