ASHRITH VADDE

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Professional Summary

AI/ML Engineer with 2 years of experience developing and deploying LLM and RAG-based applications for enterprise and research use cases. A problem-solving–oriented professional focused on translating complex AI concepts into scalable, production-ready solutions with real-world impact.

Education

Master of Science in Engineering Data Science and AI **CGPA: 4/4**
University of Houston - Houston, TX *August 2025 - May 2027*

B.Tech in Computer Science and Engineering (Artificial Intelligence) **CGPA: 8.43/10**
Amrita School of Engineering - Bengaluru, India *June 2019 - May 2023*

Skills

Languages: Python, Java, SQL, HTML, CSS
Technologies/Frameworks: Python (TensorFlow), Large Language Models (OpenAI API, LangChain), Azure (OpenAI, Databricks, Cognitive Services), Machine Learning, Deep Learning, Git, GitHub, REST APIs, Postman
Coursework: Data Structure Algorithms, Object-Oriented Programming, Database Management System

Experience

Accenture **Nov 2023 – Aug 2025**
AI/ML Computational Science Analyst *Hyderabad, India*

- Built scalable AI features for the GenLite reverse engineering platform using **LLMs, function calling,** and **advanced prompt engineering** to enable seamless cross-language code transformation.
- Designed and implemented a code conversion module with integrated preprocessing pipelines, reducing manual code migration **effort by over 70%** and supporting enterprise-scale performance and reliability.
- Delivered multiple proof-of-concept (POC) projects for **Retrieval-Augmented Generation (RAG)** applications and AI chatbots, with several promoted to **full-scale development** and production deployment in enterprise environments.

Samsung Prism **Sep 2021 – Apr 2022**
Project Intern

- Researched model interpretability with a team of 6 using **SHAP**, **CEM**, and **LIME**, achieving a **40% improvement** in explainability.
- Developed an **explainable AI (XAI)** framework for production ML systems to reduce reliance on black-box models and **improve interpretability.**

Projects

Corn Leaf Disease Classification Using Deep Ensemble Learning | Source Code **May 2023**

- Led development of a TensorFlow-based deep ensemble model (VGG16, MobileNet, InceptionV3, Xception) for corn leaf disease classification, improving test accuracy from **90–94%** to **97.6%** using **data balancing**, **image augmentation**, and **ensemble techniques** on a 4-class PlantVillage corn leaf dataset.

2048 Game Using Deep-Reinforcement-Learning | Source Code | Results **Dec 2022**

- Built a **Deep Reinforcement Learning agent** from scratch in **Python** and **PyTorch** to autonomously play the 2048 game, leveraging rewards and penalties to drive strategic tile merges and achieving a highest tile of 1024 through iterative training and optimization.

Publications

Playing Maze using Voice Commands | (ICCCNT) **Jun 2023**

- Developed a deep learning model to interpret voice commands for navigating a 2D maze by converting audio inputs into spectrograms and designed real-time maze traversal through spoken instructions.

A Real-Time Human Computer Interaction using Hand Gestures in OpenCV | (ICTIS) **Apr 2023**

- This research explores computer vision techniques to build a virtual mouse and keyboard, allowing users to control a computer with hand gestures captured by a webcam.

Certifications

- Microsoft Certified: Azure AI Engineer Associate
- Microsoft Certified: Azure AI Fundamentals
- Neural Networks and Deep Learning (Coursera)