Aman Haris

Bengaluru, Karnataka, India | amanharisofficial@protonmail.com | +91-8618985209 | linkedin.com/in/aman-haris

https://aman-haris-portfolio.onrender.com

About Me

Software Engineer with expertise in **AI, GenAI, ML** and **Automation**. Proven track record in developing impactful solutions and improving business efficiency through advanced AI technologies. Seeking new challenges in AI and ML to drive innovation.

Key Skills

AI/ML Technologies: Generative AI, Large Language Models (LLMs), Retrieval-Augmented Generation (RAG), Natural Language Processing, Computer Vision

Programming & Development: Python, FastAPI, SQL, HTML, CSS, JS

Cloud & DevOps: Azure AI Services, Azure App Services, Azure Container Registry, Azure Storage, Azure Entra ID, Azure Repos, Azure MySQL, Azure Function Apps, Docker

Frameworks & Libraries: Langchain, Huggingface, OpenAI, Pinecone, Streamlit, Gradio

Tools & Platforms: Anaconda, VS Code, Postman, PowerBI, BluePrism, SQL Workbench, Figma, Git

Professional Skills: Technical Leadership & Mentoring, Process Implementation & Optimization, Cross-Functional Collaboration, Project Management & Ownership, Continuous Learning & Innovation

Experience

Software Engineer 1 - Tessolve Semiconductors Pvt Ltd Feb 2024 – Present

Key Projects:

- **RAG-based Chatbot:** Architected and deployed a chatbot system using Langchain, OpenAI, Azure, and Pinecone, enhancing cross-departmental information retrieval by 85%
- **ArchShift Code Converter and Generator:** Pioneered a tool leveraging proprietary LLM techniques to transform ARM platform C++ code to RISC-V platform C code, achieving 95% code accuracy and reducing migration time by 90%. The tool could also generate RISC-V codes, achieving 95% code accuracy and reducing development time by 75%.
- **Assertify:** Developed an innovative LLM-powered tool that automates the conversion between English and SystemVerilog Assertions, reducing manual verification effort by 40% and improving code quality
- **Resume Analysis Tool:** Created an AI-powered ATS solution that compares resumes to job descriptions, calculates match percentages, and generates profile summaries, improving recruitment efficiency by 60%
- **ASPICE Studio:** Engineered a GenAI tool to assist automotive embedded engineers to generate interface table and UML diagrams from the C codebase in the SWE 3 phase of ASPICE. The tool helped reduce the development time by 90%.
- **Veriplan:** Developed a RAG tool that streamlines verification planning across various levels with guided workflows and intelligent prompts. This tool enables DV Engineers to create test plan and manage comprehensive coverage with minimal manual effort.
- **Schematic Verification Tool:** Engineered an AI tool that helps test engineers verify whether they have made proper connections with the tester board and the chip. This tool helps reduce the manual verification effort by 60%.
- **Miscellaneous:** Engineered an intelligent chatbot that remembered all the previous sessions of the user, which is used for training. Developed a chatbot that is proficient in FuSa Automotive. Developed an assistant chatbot for the embedded micro website and also a dashboard to track all the leads from the chatbot. Developed Sales Suite, a suite of various GenAI tools to help in various phases of lead capture. Created a logging framework to capture the logs of all the tools in use.

Leadership & Process Improvement:

- Led the implementation of Software Development Lifecycle (SDL) and CI/CD processes for the AI team, establishing standardized workflows that improved project delivery quality and consistency.
- Implemented comprehensive Azure cloud architecture for AI applications, ensuring scalability, security, and optimal performance through containerization and CI/CD pipelines
- Established best practices for code modularity, documentation, and testing, resulting in improved maintenance efficiency and knowledge transfer across the engineering team.

- Provided mentorship to new team members and interns, accelerating their integration and productivity.
- Collaborated across multiple business units, including VLSI, Embedded, Sales, Test, HR, etc, to develop tailored AI solutions that address specific departmental challenges.
- Consistently delivered projects ahead of schedule while maintaining exceptional quality standards, establishing a reputation for reliability and technical excellence
- Received **Outstanding Performance** rating for "exceeding expectations by a huge stretch, going above and beyond immediate areas of responsibility."

Education

MSc Artificial Intelligence, Heriot-Watt University Edinburgh — Sept 2022 – Dec 2023

BE in Computer Science, AMC Engineering College Bengaluru — Aug 2018 – Aug 2022

Personal Projects

ADAS with Object Detection and Tracking for Low Visibility Conditions: Developed an advanced machine learning system that enhances rider safety during poor visibility conditions using real-time object detection and tracking algorithms optimized for low-light environments.

The Sentient Sip: Developed an AI-powered narrative game built with Pygame and Mistral AI, where you interact with Rita, a quirky android café waitress who just might be humanity's last hope—or its silent judge.

Offensive Language Detection API: Developed a production-ready NLP service that identifies potentially offensive content in user-generated text with a RESTful API endpoint and sophisticated classification model.

Mattrix Auto Corp Website: Designed and developed a business website for Mattrix Auto Corp using HTML, CSS, and JS. This website increased the company's visibility and sales enquiries by 30%. You can access the website here: https://mattrixautocorp.com/

Personal Stock Portfolio Tracker: Developed an interactive personal stock portfolio dashboard that tracks open and closed positions, analyzes profit/loss performance, and gains insight into your investment behavior—all in real-time. Originally developed in Power BI, this upgraded version uses Streamlit with integrated Google Sheets and Plotly for dynamic visualizations.

ASTRA - Asteroid Threat Scoring & Trajectory Analysis: Developing an AI-powered system for predicting asteroid trajectories, assessing collision threats, and enabling real-time planetary defense insights. ASTRA is designed to: Predict asteroid trajectories using Graph Neural Networks, Quantify collision risk through Bayesian threat scoring, and Visualize asteroid threats in real-time.

Languages

English (Professional), Malayalam (Native), Kannada (Fluent), Hindi (Fluent), Tamil (Conversational)