Aman Haris

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

aman-haris.github.io/Portfolio.github.io/

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.

Education

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

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

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%
- **Session-Memory Training Chatbot:** Engineered an intelligent chatbot for technical training that improved engineering onboarding efficiency by 75% and reduced training time
- **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
- **Client Benchmarking 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%
- **Sales Suite & Marketing Suite:** Developed GenAI applications enabling teams to generate high-quality presentations and marketing materials from PDF inputs, reducing content creation time by 60%. It also has a grammar improvement bot and AI Agents doing various tasks such as fetching industry trends, company information, etc.
- **DV Flow Tool & DV Query Tool:** Engineered tools that automate design specification extraction and processing, enabling DV Engineers to generate assertions, coverage points, and constraints with minimal manual effort

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"

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.

Web Scraping Automation System: Engineered an enterprise-grade RPA solution using Blueprint RPA for automated data extraction from websites with robust error handling and data validation mechanisms.

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/

Key Skills

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

Programming & Development: Python, FastAPI, C++, 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

Languages

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