Shamsheer Ali Shaik

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SKILLS

Programming Languages: C, C++, Java, Python, JavaScript, HTML, CSS, XML, Chart.js, Rust

Tools: SQL, Neo4j, MongoDB, Github, AWS, Unity, Google API's.

AI/ML: NLP, Vector Search (FAISS), API Integration, DIffusion Models.

Libraries: Keras, OpenCV, Tensorflow, Streamlit, Transformers, SentenceTransformers, LangChain, FastAPI, Pytorch, Django

EDUCATION

Master of Science - Computer and Information Sciences (GPA: 3.63)
Oklahoma State University
08/2023 – 05/2025

Bachelor of Technology - Information Technology
RVR &JC College of Engineering
06/2019 – 05/2023

PROJECTS

Snap & Translate: The Language Playground 🔗
- Engineered a mobile application using **Unity** and **C#** that captures images via the mobile camera, identifies objects in real-time using **Google Vision API**, and labels each with its name, processing up to 60 images per minute.
- Launched an innovative solution utilizing the **Google Translate API** for translating visual content descriptions automatically into target languages; reduced manual input time by approximately three hours weekly during project development phases.

GenInsight: Generative AI Analyzer 🔗
- Engineered a **GenAI**-driven web app using **Python**, **Streamlit**, & **LangChain** to analyze news articles and answer user queries on market trends.
- Leveraged **flan-t5-base** for question answering, **SentenceTransformer** for embeddings, and **FAISS** for efficient similarity search, processing real-time news data.
- Utilized web scraping with **UnstructuredURLLoader**, text chunking with **RecursiveCharacterTextSplitter**, and **Pickle** for data persistence, demonstrating strong data handling skills.

FinWiseAI: AI-Powered Personal Finance Advisor with Market Sentiment Analysis 🔗
- Built an AI-driven web app using **FastAPI** and **React** to provide personalized financial advice, investment recommendations, and market sentiment analysis, leveraging **flan-t5-large**, **distilbert**, and **Alpha Vantage API** for real-time data.
- Implemented **FAISS** for vector search of investment options and **Chart.js** for visualizations (budget pie chart, sentiment bar chart), enhancing user experience with interactive data insights.

PROFESSIONAL EXPERIENCE

Gen-AI Researcher 04/2025 – present | USA
Oklahoma State University
- Developed a **conditional diffusion model** in **PyTorch** to predict 512x512 binary deposit morphologies in aerosol jet printing, achieving IoU > 0.8 and F1 Score > 0.89, enhancing process optimization for printed electronics.
- Designed and trained a **U-Net-based** diffusion model with physics-informed penalties, processing **23,367 images** to capture complex AJP features like edge roughness and overspray, improving upon cGAN stability.
- Implemented dataset preprocessing and evaluated model performance using **AJP-specific metrics**, streamlining manufacturing workflows.

Video Game Development Mentor 06/2024 – 05/2025 | USA
Oklahoma State University
- Mentored and guided over 20 student teams in the development of video game projects using the **Unity Engine** and **C#**.
- Ensured high-quality code and seamless collaboration by overseeing **source code management**, branch strategies, and pull requests for all student projects using Git and GitHub.

Web Developer 07/2022 – 07/2023 | India
PC Control Systems Pvt Lmt.
- Optimized web components using **PHP, JavaScript, and SQL** to boost application performance by 30% and designed front-end features ensuring 100% cross-browser compatibility, enhancing web application load times by 25%.
- Conducted comprehensive unit and integration testing, successfully identifying and resolving bugs, which significantly simplified the UX.

Machine Learning Intern 01/2022 – 06/2022 | India
Indian Servers
- Built and optimized machine learning models using **Keras and OpenCV**, improving classification accuracy by 10%.
- Enhanced **CNN**-based solutions for image recognition and predictive analytics, deploying scalable AI-driven applications that improved classification accuracy by 15%.

LEADERSHIP & INVOLVEMENT

Indian Student Association, Oklahoma State University 08/2024 – 05/2025
Cultural Secretary
- Led and oversaw a team of 20 members in planning and executing large-scale cultural events and performances, enhancing cultural awareness and ensuring seamless coordination for engaging community experiences at the university.

Make A Difference(MAD) 03/2022 – 06/2023
Academic Support Volunteer
- Enhanced instructional skills by teaching a year-long educational program, delivering impactful lessons and mentoring over 15 students, while fostering a supportive and engaging learning environment that significantly increased teaching effectiveness.

CERTIFICATES

- AWS Academy Graduate - AWS Cloud Foundation 🔗
- The Complete Java Certification Course 🔗
- AWS Educate Introduction to Generative AI 🔗
- Complete C# Unity 3D Game Development 🔗