Shamsheer Ali Shaik

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EDUCATION

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

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

SKILLS

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

Tools: Web Scraping, Data Splitting, Hadoop, SQL, Neo4j, MongoDB, Eclipse, Github, AWS, Unity, Google API's

AI/ML: Generative AI, NLP, Vector Search (FAISS), API Integration

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

PROFESSIONAL EXPERIENCE

Gen-AI Researcher present | USA
Oklahoma State University
- Developed a **Vision Transformer**-based model in **PyTorch** to predict 512x512 deposit morphologies in **aerosol jet printing**, achieving IoU > 0.8 and F1 Score > 0.89, enabling preemptive visualization for printed electronics.
- Designed and trained the **conditional transformer** on 23,400 microscopic images, using a hybrid loss (BCE + perceptual loss) to capture complex spatial features like edge roughness and overspray.
- Evaluated model performance with **AJP-specific metrics** (trace width, continuity, roughness, overspray) using **OpenCV** and statistical analysis, optimizing manufacturing process efficiency.

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 over 100 bugs, which significantly simplified the user experience.
- Partnered with cross-functional teams to engineer and deliver tailored web solutions, consistently meeting project timelines and boosting client satisfaction scores by 15%.

Machine Learning Intern 04/2022 – 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%.
- Boosted model performance by 20% using advanced techniques like hyperparameter tuning and data augmentation, ensuring robust outputs.

CERTIFICATES

- AWS Academy Graduate - AWS Cloud Foundation 🔗
- Source Code Management Using Git & Github
- AWS Educate Introduction to Generative AI 🔗
- The Complete Java Certification Course 🔗

PROJECTS

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.

GenInsight: Generative AI Analyzer 🔗
- Engineered a **GenAI**-driven web app using **Python**, **Streamlit**, and **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.

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.

CO-CURRICULAR ACTIVITIES

Indian Student Association, Oklahoma State University 08/2024 – present
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.