Shamsheer Ali Shaik

shamsheeralissa@gmail.com | +1 9252000930 | https://www.linkedin.com/in/shamsheeralishaik/ | https://shamsheerali.github.io/Portfolio/

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

Star Lander – Unity Game Development 🔗
- Developed *Star Lander*, a 2D space navigation game using **Unity and C#**, featuring physics-based rocket movement, dynamic obstacles, and level-based progression.
- Implemented player controls for thrusting and rotation, **collision handling** with **audio-visual feedback**, and a **UI system** with a rules pop-up and persistent level display.
- Designed modular scripts to manage **scene transitions**, input systems, and **particle effects**, ensuring a polished and engaging player experience.

Extended Reality Building Simulation (VR) 🔗
- Developed a dynamic, physics-based simulation in **Unity** and **C#** to visualize the assembly and demolition of a complex structure.
- Engineered the core mechanics by scripting **sequential animations** and **object hierarchies**, and implemented robust **collision detection** that triggered realistic physics-based responses upon impact.
- Enhanced user experience by integrating **multiple camera systems** and a voiceover introduction to create engaging, multi-perspective educational content.

Augmented Reality Dragon (AR) 🔗
- Engineered a mobile **Augmented Reality** app in Unity that utilizes the device's camera to recognize a predefined target image in real-time.
- Implemented **marker-based image tracking** to overlay and render an interactive, animated **3D dragon model** onto the real-world environment.
- Developed intuitive user controls by integrating a **virtual joystick** to allow for real-time manipulation and interaction with the 3D object.

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

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