KEERTHANA SRINIVASAN

Denton, Texas 76201 | +1 9402185447 | srikeerthana2211@gmail.com | Linkedin | GitHub | Portfolio

SUMMARY

AI/ML Engineer and Data Scientist with 2+ years of experience building and deploying real-world solutions across speech AI, safety systems, and cognitive tech. Proven success developing end-to-end ML pipelines for transcription, stress detection, churn prediction, and fraud analysis. Spearheaded AR/VR-based emergency systems at UNT using Unity, HoloLens, and EEG integration for indoor navigation and real-time biofeedback. Strong collaborator with cross-domain exposure to healthcare, education, defense, and HR tech, bridging research and product.

TECHNICAL SKILLS

Programming & Development: Python, Java, C++, C, C#, MATLAB, Streamlit, FastAPI, Flask
Data Science & Cloud: SQL (MySQL, PostgreSQL), MongoDB, Tableau, Power BI, Excel, AWS, GCP, Hadoop, Hive, Spark, HDFS, Snowflake
Machine Learning & DevOps: Gen AI, TensorFlow, PyTorch, Hugging Face, Scikit-learn, Keras, LangChain, MLflow, Agile Methodologies, Docker, Kubernetes, CI/CD, Model Deployment
NLP & Computer Vision: OpenCV, ONNX Runtime, RAFT, BLEU/ROUGE evaluation, Transformers, Speech-to-Text (Whisper)
Collaboration Tools: Git, JIRA, Confluence
AR/VR & 3D Development: Unity, MRTK3, Vuforia, Photon (Multiplayer VR), ARCore, ARKit, CesiumJS, WebXR, Convai, Azure Cognitive Services

PROFESSIONAL EXPERIENCE

Machine Learning Intern, Vosyn Inc., Chicago **Aug 2025 – Present**

- Develop and deploy a **speech-to-text pipeline** using **Faster-Whisper** on **Vertex AI,** reducing transcription latency by **35%** for multilingual audio and enabling real-time content localization.
- Build a **speaker diarization system** to separate voices in noisy, multi-speaker recordings, improving clarity and translation readiness by **17%.**
- Automate audio preprocessing and feature extraction, reducing manual effort and ensuring consistency across varied datasets.
- Research and integrate **LLM fine-tuning and speech AI techniques,** contributing to future improvements in Vosyn's voice intelligence products.

Graduate Teaching Assistant, University of North Texas, Denton, TX **Aug 2024 – Present**

- Mentored **300+** students across **AR/VR, software engineering, and data science**, guiding projects using **Unity, HoloLens, Python, and Tableau.**
- Led weekly sessions on **object-oriented programming, Git, Agile, and SDLC,** strengthening students' collaboration and software development skills.
- Taught **Unity XR** and **C# scripting,** enabling deployment of AR/VR apps for emergency navigation, medical simulation, and interactive education.
- Co-developed lab assignments, project evaluations, and coached students on technical presentations, documentation, and team-based demos.

Machine Learning Research Assistant, University of North Texas, Denton, TX **Jan 2024 – Sep 2024**

- Developed an **NLP-driven chatbot** to improve communication accessibility for individuals with **Intellectual and Developmental Disabilities (IDD),** combining research insights and system design to address real-world gaps.
- Applied **RAFT (Robustly Optimized Adversarial Fine-Tuning)** to enhance model performance, achieving a **20% reduction** in misinterpretations across varied conversation flows.
- Led model evaluation using **BLEU, ROUGE, and F1**, and fine-tuned language generation for low-resource environments, improving response consistency.

Application Development Associate (Full-Time), Accenture, Bengaluru, India **June 2023 – Jan 2024**

- Developed and deployed **Salesforce Lightning Web Components (LWC)** and customized dashboards to enhance user experience and meet evolving client needs across multiple business domains.
- Designed and implemented **Apex classes, triggers, and SOQL queries**, enabling scalable backend logic and improving application reliability for high-volume enterprise workflows.
- Built and integrated a **churn prediction model** within Salesforce, enabling proactive customer retention strategies through machine learning insights.
- Automated reporting workflows and connected **Tableau dashboards** to Salesforce data, transforming manual business reporting into real-time, decision-ready analytics.

Java and Web Application Development Intern, LTIMindtree, India **March 2023 – May 2023**

- Developed full-stack **Java-based web applications** by integrating responsive front-end interfaces with robust back-end services, supporting key client workflows.
- Built a **Python ETL pipeline** to automate data extraction and transformation, improving data consistency and reducing manual data prep time.
- Designed interactive **Power BI dashboards** to visualize key performance metrics and enhance data-driven decision-making for internal stakeholders.
- Implemented a **recommendation engine** using collaborative filtering, enabling personalized content delivery based on user behavior patterns.
- Worked in **Agile teams** and collaborated with cross-functional stakeholders to gather requirements, test features, and deploy timely solutions.

PROJECT EXPERIENCE

AI Assistant for Doctors and Patients using Google's Gemini Pro (Link)

- Developed an AI-powered assistant that analyzes **medical images (X-rays, skin scans)** and provides structured diagnoses and treatment suggestions in real time.
- Applied **prompt engineering and safety filtering** to ensure medically responsible outputs for both professionals and non-experts.
- Delivered a fast, lightweight interface using **Gemini Pro + Streamlit,** improving accessibility and decision-making in clinical settings.

Mobile AR/VR Application for UNT (Link) (Link)

- Developed a cross-platform AR/VR app for **indoor navigation and emergency evacuation** at UNT Discovery Park using Unity and HoloLens.
- Implemented **real-time pathfinding** to exits and AEDs with marker detection and dynamic route visualization.
- Integrated a **chatbot and virtual avatars** to deliver UNT-specific safety guidance through interactive voice support.

EEG-Driven VR Stress Monitoring and Therapy (Galea & Emotiv) (Link) (Link)

- Designed immersive VR environments in Unity (e.g., therapy rooms, nature scenes, guided meditation) that **dynamically respond to user stress levels** for real-time **biofeedback-based** mental health support.
- Captured and streamed **EEG and physiological signals** using Galea and Emotiv headsets, including Alpha, Beta, and Theta brainwaves, via SDK and Cortex API integration.
- Trained **ML models (SVM, Random Forest)** to classify mental states such as stress, relaxation, and engagement, enabling intelligent environment adaptation.
- Built visualization dashboards and feedback interfaces to **track stress trends, spikes, and recovery patterns,** improving user self-awareness and therapy effectiveness.
- Conducted **controlled experiments and scenario testing** (e.g., active shooter simulations, meditation rooms) to validate system accuracy and emotional response calibration.

Fraud Detection in E-Commerce Transactions (Link)

- Tackled the challenge of identifying **fraudulent transactions** in large-scale **e-commerce data** with imbalanced classes.
- Built and tuned classification models **(Random Forest, XGBoost)** to separate fraudulent from legitimate behavior.
- Engineered features based on user activity, product categories, and payment patterns to enhance **anomaly detection.**
- Delivered fraud trend visualizations via **Tableau,** enabling risk analysts and business teams to act on real-time insights.

EDUCATION

Master of Science (Data Science) at University of North Texas, Denton, Texas — Jan 2024- Dec 2025

Bachelor of Technology (Mechanical Eng) at Anurag University, Telangana, India — Aug 2019- May 2023

ACHIEVEMENTS

- Presented a poster on AR/VR emergency navigation at UNT University Research Day, showcasing real-time indoor evacuation system.
- Led interdisciplinary teams at DVXR Lab, managing AR/VR and AI projects across HoloLens, Unity, and Python.
- Selected for Microsoft Career Discovery Program exploring AI/ML roles.
- Represented UNT at Broadcom North American MTE 2025, attending 120+ technical workshops.
- Won 1st Prize in Project Expo for CubeSat "Proof of Life Transmitter."
- Won 1st Prize in Paper Presentation on Functionally Graded Material