SANKAR DEV S

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OBJECTIVE

Full-stack Engineer and AI Researcher specializing in integrating LLMs and NLP frameworks into scalable web applications. Proven track record of moving research to production, including a **95.08% F1-score** classification model published in JDSIS.

EDUCATION

Masters in Artificial Intelligence, University of East London, UK — 2023 – 2025
Bachelor of Computer Application, Kerala University, India — 2019 – 2022

SKILLS

AI & Machine Learning: NLP (BERT, RoBERTa), Deep Learning (TensorFlow, CNN), Generative AI (Prompt Engineering, RAG, Langchain), PySpark, LLM Data Pipelines, Sentiment Analysis.
Web Development: JavaScript/TypeScript (React, Node, Next.js), Python (Django, Flask), PHP, HTML5, CSS3.
Cloud & DevOps: AWS (EC2), Docker, CI/CD, Git, RESTful APIs, Sockets.IO, Postman, SQL.
Professional Skills: Project Management, Technical Leadership, Bespoke Software Architecture.

PUBLICATIONS

Sankar, D. S., et al. "NLP-Framework for Youngsters with Advanced Transformer-Based Models." *Journal of Data Science and Intelligent Systems (JDSIS)*, 2026.

EXPERIENCE

Research Assistant — September 2024 – Present
University of East London — *London, United Kingdom*

- Engineered a high-performance data pipeline to merge and preprocess **250,000+ text samples** from multi-domain datasets, including GoEmotions and Hate Speech corpora.
- Optimized training latency by **30%** by implementing custom cleaning scripts and efficient tokenization strategies for LR, RF, BERT, and RoBERTa models.
- Developed the core classification architecture for **JDSIS-published research**, achieving a peak **95.08% F1-score** in text-based emotion recognition using RoBERTa.
- Pioneered a multimodal framework (**SoundSense**) using Wav2Vec2.0, outperforming traditional SVM/RF models by **30%** in vocal anomaly detection accuracy **(78.10%)**.

Software Associate — May 2022 – May 2023
Riss Technologies — *Ernakulam, Kerala, India*

- Architected and delivered **200+ bespoke software solutions**, maintaining a **95%** client satisfaction rate while managing cross-functional tech stacks (Python, PHP, React).
- Integrated predictive ML models into production environments to automate decision-making processes, reducing manual data processing time by approximately **20%**.

Freelance web developer — February 2023 – October 2023
Techise Solutions — *Alappuzha, Kerala, India*

- Architected scalable backend systems using **Laravel** and **MySQL**, optimizing database schemas to improve query performance for high-traffic client sites.
- Engineered custom front-end components using **React.js** and modern CSS frameworks, ensuring **100%** mobile-responsive designs across diverse client portfolios.

PROJECTS

SoundSense – Multimodal Vocal Anomaly Detection

- Developed a cross-modal AI system to detect emotional inconsistencies between spoken text and vocal tone using **Wav2Vec2.0** and **RoBERTa**.
- Fine-tuned Wav2Vec2.0 on the **CREMA-D** dataset to achieve **78.10% accuracy** in raw audio emotion classification, bypassing traditional manual feature extraction.

EmoTract – Advanced NLP Framework with Age Verification

- Engineered a real-time sentiment platform using **BERT** and **RoBERTa** to classify 28 distinct emotions, handling multi-label classification.
- Architected the full stack using **Django, React.js, and TypeScript**, containerizing the environment with **Docker** for scalable deployment.

Explore my GitHub for additional projects in AI, Web Development, and Distributed Systems.