Shivam Aralikatti

+91-8296403009 | shivamaralikatti01@gmail.com | linkedin.com/in/shivamaralikatti | shivamaralikatti.in

Education

Vellore Institute of Technology — Aug 2020 – May 2024
Bachelor of Technology in Electronics and Communications— CGPA: 8.0 — *Vellore, India*
- Relevant Coursework: IoT, Machine Learning, VLSI, Digital Logic and Design

Technical Skills

Programming Languages: Python, SQL, C++, Verilog, HTML, CSS, JavaScript
ML & AI Techniques: Supervised & Unsupervised Learning, Deep Learning, Computer Vision, NLP
Frameworks & Tools: PyTorch, TensorFlow, Keras, Hugging Face Transformers, OpenCV, Tesseract OCR
Statistical Modeling & Analysis: Regression, Classification, Clustering, Gradient Boosting, Time Series
Data Analytics & Visualization: Pandas, NumPy, SciPy, Scikit-learn, Matplotlib, Seaborn, Plotly

Experience

AI Analyst — June 2025 – Present
FLAME University — *Pune, India*
- Processed and visualized mess usage data to forecast daily food consumption, reducing food wastage by approximately 65% using time-series modeling.
- Analyzed over 10,000 biometric log entries to identify patterns in student movement, optimizing class scheduling and predicting grades.
- Designed interactive dashboards to present actionable insights to access student essays, thus reducing the human-effort and time consumptions by 50%

ML Research Associate — June 2024 – May 2025
FLAME University — *Pune, India*
- Conducted research on medical image classification using Variational Autoencoders (VAE) and CNNs, increasing cancer detection accuracy by 12% on imbalanced datasets.
- Built and deployed an NLP-based essay scoring engine using Flask, achieving a prediction RMSE of 0.87
- Preprocessed and visualized data using Pandas and Seaborn for academic reporting

Research Intern — Aug 2023 – Dec 2023
National University of Singapore — *Singapore*
- Trained ML models to detect smoking imagery, hate speech, and fake news by scraping and annotating over 12,000 social media posts.
- Developed a 3D face reconstruction pipeline for deepfake correction using multi-view 2D inputs, restoring over 40% of facial features to authentic representations
- Integrated a CNN-based classification model into a web interface, improving classification speed by 25%.

Projects

EvalEdge: A Modern Hybrid Essay Evaluator — *RF, Transformers, GloVe Embeddings* — Oct 2024 – Apr 2025
- Conducted a comparative study on Automated Essay Scoring using various regression models and text embedding techniques and identified Random Forest with GloVe embeddings as the most effective approach with MAE of 1.40
- Developed a web application showcasing the best AES model, featuring grammar checks, sentiment analysis, AI detection, and a summary dashboard based on the evaluation of over 2,500 essays with accuracy comparable to human graders.

Endometrial Histopathological Image Classification — *VAE, CNN, ML* — June 2024 – Oct 2024
- Implemented a 2-stage ML pipeline using VAE for feature extraction and CNN for classification of cancerous tissues with over 87.3% accuracy.
- Implemented SMOTE and K-Fold cross-validation to address class imbalance and enhance model robustness, resulting in a 12.8% increase in accuracy.

Regulatory Analysis of Online Social Media Platforms — *NLP, CV, GNN* — Sep 2023 – Dec 2023
- Developed a text-image classification system with OCR integration to label over 12,000 posts as promotional, neutral, or advisory.
- Engineered GNN model combining LDA, TF-IDF, and GCN with cosine-weighted edges for text classification, achieving 93.8% accuracy.

Publications

- Shivam Anand Aralikatti, *et al.* **"Graph-Based Regulatory Analysis of Online Social Media Content"** – Published in *Springer LNNS Series (ICSCSP 2024).* [Link]

Certifications

- **Data and AI:** AI Analyst Certification (IBM), SQL - Advanced Certification (HackerRank)
- **Advanced Data Analytics:** Data Analytics using Deep Learning(NUS), Data Analytics Using Big Data(AWS)
- **Other:** Agile Project Management (Coursera)