Mohd Aamir

+33-754500861 | astroaamir96@gmail.com | LinkedIn| GitHub| Portfolio

Education

EURECOM — Sophia Antipolis, France
Master of Science in Data Science — *Sep. 2021 – Sep 2023*

SRM University — Chennai, India
Bachelor of Technology in Electronics and Communication — *Sep. 2016 – Sep 2020*

Experience

Research Engineer — Feb 2024 – Present
EURECOM — Huawei Project Netception — EU Project Adroit6G — *Sophia Antipolis, France*

- Engineered a state-of-the-art anomaly detection pipeline for multivariate time series by adapting COIN++, an Implicit Neural Network enabling direct modeling of missing values and improving anomaly detection F1-score by 12% over Huawei's baseline models.
- Benchmarked 12+ architectures (e.g. LSTM/TCN/Transformer) on synthetic and confidential Huawei datasets; under controlled missingness of time series data.
- Integrated 3 pre-trained diffusion models into MLflow, enabling real-time generation of missing 3D holographic views during teaching sessions for the EU Adroit6G project.
- Validated outputs through various KPIs such as SSIM/PSNR, sustaining over 95% SSIM on generated views.
- Collaborated with 20+ researchers and industry partners across Europe, representing EURECOM in bi-weekly consortium meetings and delivering technical papers and work packages.

Research Intern – Computer Vision — Mar. 2023 – Sep 2023
HUAWEI — *Mougins, France*

- Generated a dataset of 50,000 noisy raw images by reversing Huawei's proprietary image processing pipeline, enabling supervised training for raw image denoising.
- Implemented a CNN-based raw image denoising model in PyTorch, pruned CNN to cut inference time by 21% with PSNR drop less than 3 dB.
- Optimized training pipelines/hyperparameters, reducing training time by 15% on Huawei's GPU clusters.

Projects

Enterprise AI: LangChain Tool-Calling & RAG Agent | July. 2025 – Sep. 2025

- Built an end-to-end enterprise assistant using LangChain, tool calling, and RAG over company knowledge to draft emails, schedule meetings via Gmail, and answer internal queries.
- Orchestrated LangChain agents and tools using structured toolcalling, RAG chains, and vector retrieval via Pinecone for context awareness, backed by SQLite for chat memory.
- Developed backend with FastAPI, containerized using Docker, deployed on Kubernetes and AWS, and managed via CI/CD for scalability.

Detecting Prevent/Enable event relationship types in text | Oct. 2022 – Feb. 2023

- Created 1.4M-sentence dataset from 140 k news articles using a Python-based extraction and preprocessing.
- Applied S-BERT embeddings with ensemble classifiers, achieving 87% accuracy outperforming single-model baselines by 6%.

Detecting Context Misinformation in Text and Images | Mar. 2022 – June 2022

- Extracted features from text (S-BERT) and images (ResNet-50) for multi-modal misinformation classification.
- Trained MLP and SVM classifiers in TensorFlow, improving accuracy by 9% over previous baselines.

Snake Species Identification Using Images | Oct. 2021 – Feb. 2022

- Developed CNNs alongside SVM, MLP, and KNN classifiers for venomous snake identification.
- Achieved high-accuracy classification enabling potential field deployment for wildlife safety applications.

Technical Skills

Programming Languages: Python, C++, SQL, MATLAB, JavaScript, HTML5, CSS
Data Science & Machine Learning: PyTorch, TensorFlow, Keras, scikit-learn, CUDA, LLMs, NLP, Diffusion Models, Pandas, NumPy, SciPy, Matplotlib, Seaborn, OpenCV, OpenAI API, HuggingFace Hub API
Tools & Frameworks: LangChain, MLFlow, Docker, Git, Linux, AWS, Kubernetes, VS Code, Visual Studio, SQL, Pinecone, React, TailwindCSS, FastAPI, REST APIs