SAI AKSHAY MENTA

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OBJECTIVE

AI researcher and master's student with 4 peer-reviewed publications, specializing in Generative AI and NLP. Skilled in building scalable ML pipelines, fine-tuning LLMs (LLaMA, GPT), and deploying AI systems using Hugging Face, PyTorch, and LangChain. Seeking ML/AI internship roles to apply hands-on skills in model development, prompt engineering, and real-world problem solving.

EDUCATION

Northeastern University **Sep 2024 - May 2026 (Expected)**
Master of Science in Artificial Intelligence
Relevant Coursework: Foundations of AI, NLP, LLMs, Algorithms, Program Design Paradigm

Amrita Vishwa Vidyapeetham University, India **Oct 2020 - Jun 2024**
Bachelor of Technology in Computer Science and Engineering (Artificial Intelligence)
Relevant Coursework: Speech/NLP AI, Deep Learning, Reinforcement Learning, Big Data

SKILLS

Languages	Python (Advanced), SQL, C++
AI/ML Frameworks	PyTorch, TensorFlow, Hugging Face Transformers, scikit-learn, LangChain
LLM/GenAI Tools	OpenAI API, Groq API, Prompt Engineering, OpenRouter
Cloud/DevOps	Google Cloud Platform (Vertex AI, Compute Engine), Airflow, Git
Visualization	Power BI, Streamlit, Matplotlib
Specialties	Generative AI, Large Language Models, NLP, Retrieval-Augmented Generation (RAG)

EXPERIENCE

Data Analytics Intern **Feb 2024 - Jun 2024**
Genpact | *Power BI, Python, SQL, OpenAI API, PyTorch, Airflow* *Hyderabad, India*

- Designed and deployed a real-time HR analytics dashboard using Power BI, integrating 500K+ records via Python ETL and SQL pipelines to enhance workforce trend insights.
- Engineered an ML pipeline with scikit-learn and PyTorch on HR data, using feature elimination and grid search to identify 10+ predictors and improve prediction accuracy by 30%.
- Automated data preprocessing by integrating AI-augmented Python scripts (OpenAI API, Pandas) and SQL procedures into Airflow DAGs, reducing manual effort by 40%..

PUBLICATIONS

- **Semi Supervised Flood Damage Detection Using Satellite Images**
  Lecture Notes on Data Engineering and Communications Technologies, Springer Nature
  ICCAIML 2024, doi: 10.1007/978-981-96-0451-711 Apr 2025
- **Enhancing Knee Osteoarthritis Severity Level Classification Using Diffusion Augmented Images**,
  ICACECS 2023, Springer, doi: 10.2991/978-94-6463-314-6_27 Dec 2023
- **A Few-Shot Approach to Dysarthric Speech Intelligibility Level Classification Using Transformers**,
  14th ICCCNT, IEEE, doi: 10.1109/ICCCNT56998.2023.10308067 Nov 2023
- **Improving Reinforcement Learning Agent Training Using Text-Based Guidance: A Study Using Commands in Dravidian Languages**, *3rd Workshop on Speech and Language Technologies for Dravidian Languages*, ACL Anthology, https://aclanthology.org/2023.dravidianlangtech-1.5 Sep 2023

PROJECTS

EmoLingo Chatbot: Emotionally and Linguistically Adaptive AI Assistant **Feb 2025 – Apr 2025**
Tech Stack: Python, PyTorch, Hugging Face Transformers, Streamlit, Groq API [GitHub]

- Built a multi-model pipeline combining emotion detection, tone classification, and English proficiency estimation to deliver personalized chatbot responses.
- Fine-tuned 4 transformer models (RoBERTa, T5, ELECTRA, DistilBERT) on GoEmotions, ICNALE, and a custom style dataset for robust multi-label emotion and writing-style detection.
- Achieved 60.8% micro-F1 for emotion detection and 77.8% accuracy across 12 writing styles, enabling inclusive, empathetic interactions.
- Developed a Streamlit UI and integrated a dynamic prompting system with LLaMA 3-70B via the Groq API for real-time, tone-aligned, simplified response generation.