SAI AKSHAY MENTA

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OBJECTIVE

AI researcher and MS student with 4 peer-reviewed publications in Generative AI, NLP, and Reinforcement Learning. Skilled in building scalable ML pipelines, fine-tuning LLMs (LLaMA, GPT, RoBERTa, T5), and deploying production-ready AI systems on cloud platforms. Passionate about advancing AI by bridging research and real-world applications, with a focus on transforming state-of-the-art models into scalable, impactful solutions.

EDUCATION

Northeastern University **Sep 2024 - May 2026 (Expected)**
Master of Science in Artificial Intelligence
Relevant Coursework: Foundations of AI, NLP, LLMs, Machine Learning, Advanced Perception, 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), AzureML, Git
Visualization	Power BI, Streamlit, Matplotlib
Specialties	Generative AI, RAG, Deep Learning, Reinforcement Learning, Probabilistic Models

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 that enabled leadership to make data-driven decisions on workforce trends.
- Implemented an end-to-end ML pipeline using scikit-learn and PyTorch to predict employee attrition, applied advanced feature selection and hyperparameter tuning to identify 10+ key predictors and improved model accuracy by 30%.
- Innovated the data preparation process by developing AI-augmented Python scripts (OpenAI API, Pandas) within Airflow DAGs, automating complex ETL workflows and reducing manual data handling 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 Dec 2024
- **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]

- Developed EmoLingo, an emotionally adaptive AI assistant, by fine-tuning a suite of transformer models (ROBERTa, T5) to achieve 77.8% style accuracy in detecting user emotion and tone. Engineered a real-time response system by integrating the state-of-the-art LLaMA 3-70B model via the Groq API and deployed the full-stack application with Streamlit.

PromptPrint : Sustainable AI Usage Analyzer **May 2025 – Jul 2025**
Tech Stack: Python, Langchain, OpenRouter, LLM APIs, Energy Estimation APIs [Demo]

- Developed a web tool to compute energy (Wh), CO_2 (g), and water (L) usage across LLaMA and DeepSeek models, integrating dynamic prompt-based model routing, real-time impact estimation, and region-aware inference simulation.