

# SAI AKSHAY MENTA

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## OBJECTIVE

Highly motivated AI researcher and Artificial Intelligence master’s student with **4 published research papers**, specializing in **Generative AI**. Experienced in designing, training, and deploying **scalable AI systems**, with hands-on expertise in **large language models (LLMs)** and **visual-language models (VLMs)**. Passionate about solving complex, real-world challenges. Seeking opportunities to contribute to cutting-edge projects at the intersection of AI research and impactful applications.

## EDUCATION

Northeastern University

Master of Science in Artificial Intelligence

Relevant Coursework: Foundations of Artificial Intelligence, Program Design Paradigm  
Natural Language Processing, Algorithms, Large Language Models

Sep 2024 - May 2026 (Expected)

Amrita Vishwa Vidyapeetham University, India

Bachelor of Technology in Computer Science and Engineering (Artificial Intelligence)

Relevant Coursework: AI in Natural Language Processing, AI in Speech Processing, Deep Learning for Signal & Image Processing, Deep Reinforcement Learning, Python for Machine Learning, Big Data Analytics

Oct 2020 - Jun 2024

## SKILLS

Frameworks/Libraries	Transformers, PyTorch, TensorFlow, LangChain, OpenRouter
Specializations	Generative AI (Large Language Models), Natural Language Processing, AI Agents
Programming Languages	Python (Advanced), SQL (Intermediate), C++ (Intermediate)
Tools & Cloud	PowerBI, Git, Google Cloud Platform (Vertex AI, Compute Engine, Vision API)

## EXPERIENCE

Data Analytics Intern

Genpact | Power BI, Python, SQL, Generative AI, ML

Feb 2024 - Jun 2024

Hyderabad, India

- Created a Power BI dashboard for 500K+ HR records using Python ETL and SQL, delivering real-time workforce insights.
- Developed a Python ML pipeline with scikit-learn and PyTorch, performing feature engineering and model tuning to identify 10+ key HR predictors, increasing accuracy by 30%.
- Automated data prep by orchestrating AI-augmented Python (OpenAI API & Pandas) ETL scripts and SQL stored procedures in an Airflow DAG, cutting manual preprocessing by 40%.

## PUBLICATIONS

- Semi Supervised Flood Damage Detection Using Satellite Images**  
*Lecture Notes on Data Engineering and Communications Technologies*, Springer Nature  
doi: [10.1007/978-981-96-0451-711](https://doi.org/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](https://doi.org/10.2991/978-94-6463-314-6.27) Dec 2023
- A Few-Shot Approach to Dysarthric Speech Intelligibility Level Classification Using Transformers**,  
*14th ICCNT*, IEEE, doi: [10.1109/ICCCNT56998.2023.10308067](https://doi.org/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

Tech Stack: Python, PyTorch, Hugging Face Transformers, Streamlit, Groq API [\[GitHub\]](#)

Feb 2025 – Apr 2025

- 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.