

VENKATA KRISHNA RAYALU GARAPATI

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OBJECTIVE

Graduate student in Artificial Intelligence at Northeastern University with hands-on research in NLP, CV, and LLMs. Seeking an internship to contribute to impactful AI projects and expand my real-world experience.

EDUCATION

Master of Science in Artificial Intelligence Sep 2024 – May 2026 (Expected)

Northeastern University, Boston, MA

GPA: **3.9/4.0**

Relevant Courses: Foundations of Artificial Intelligence, Program Design Paradigm, Algorithms, NLP, Machine Learning.

Bachelor of Engineering in Computer Science and Engineering (Artificial Intelligence) Oct 2020 – Jun 2024

Amrita Vishwa Vidyapeetham, Coimbatore, India

First Class with Distinction

GPA: **8.13/10.0**

Relevant Courses: DSA, Machine Learning, Deep Learning, NLP, RL, DBMS, CN

SKILLS

Programming Languages	Python, SQL, Java, Matlab, Git
Libraries & Tools	PyTorch, TensorFlow, Scikit-Learn, Transformers, OpenCV, NumPy, Pandas
Cloud & Reporting	AWS, SharePoint
Soft Skills	Problem Solving, Analytical Thinking, Communication, Teamwork, Leadership

EXPERIENCE

Software Engineer Intern Nov 2023 – Jul 2024

Metayage Pvt Ltd, Hyderabad, India

- Developed AI-powered disclosure app reducing processing time by 30%.
- Drafted 20+ AI/ML patents across deep learning, NLP, and CV domains for India and USA.
- Analyzed advanced patent tech like LLMs, CNNs, and generative models.

Research Assistant Aug 2022 – Apr 2023

Amrita School of Artificial Intelligence, Coimbatore, India

- Contributed to 4 publications in ACL, IEEE, and Springer conferences.
- Worked on CV pipelines for medical imaging and NLP for regional languages.
- Built chatbot emotion detection and smart monitoring systems using AI+IoT.

PROJECTS

EmoLingo: Emotion & Tone-Aware Chatbot Mar 2024 – Jun 2024

[GitHub Repo](#)

- Built a multi-model chatbot pipeline from scratch, fine-tuning RoBERTa, T5, and Electra (LoRA) on GoEmotions for multi-label emotion detection (60.8% F1).
- Created a novel CEFR-level proficiency classifier by fine-tuning DistilBERT on ICNALE (IELTS-style essays); first to apply it for real-time chatbot personalization (66% macro F1).
- Fine-tuned RoBERTa for tone detection across 12 styles using a custom Reddit/Google dataset (77.8% accuracy).
- Generated dynamic responses via LLaMA3-70B (Groq API), personalized via ensemble predictions and prompt adaptation; deployed full pipeline in Streamlit with AMP optimization.

Semi-Supervised Flood Detection via Satellite Imagery Feb 2024 – May 2024

[Springer LNNS](#), [ICACECS 2023](#)

- Attained 98.3% accuracy with ResNet-18 using Sentinel-2A and Louisiana datasets for turbid water flood detection.
- Boosted precision (0.94) and recall (0.95) via preprocessing and transfer learning for emergency response support.

PUBLICATIONS

- Emobot: Emotion Detection for Enhanced Chatbot Interaction**, Springer LNNS, Congress on Intelligent Systems. [\[DOI\]](#)
- Enhancing Telugu News Understanding**, ACL DravidianLangTech Workshop, RANLP 2023. [\[ACL\]](#)