SAI AKSHAY MENTA

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OBJECTIVE

Artificial Intelligence graduate student with a strong background in machine learning and artificial intelligence, seeking a Summer 2025 internship to leverage my skills in a challenging role, contribute to innovative projects, and drive impactful results.

EDUCATION

Master of Science in Artificial Intelligence — **Sep 2024 - Apr 2026 (Expected)**
Northeastern University, Boston, MA

B.Tech in Computer Science and Engineering (Artificial Intelligence) — **Oct 2020 - Jun 2024**
Amrita Vishwa Vidyapeetham University, India | **First Class with distinction** — **GPA: 8.29/10**

SKILLS

Programming Languages	Python (Advanced), SQL (Intermediate), C++ (Intermediate)
Libraries	NumPy, Pandas, Matplotlib, Scikit-Learn, PyTorch, TensorFlow, Transformers, PySpark
Machine Learning	Supervised/Unsupervised Learning, Deep Learning, Reinforcement Learning
Specializations	Natural Language Processing, Computer Vision, Generative AI, LLMs (Fine-tuning, Prompt Engineering), Time Series Analysis
Tools & Cloud	PowerBI, LangChain, Linux, Git, AWS, Google Cloud Platform

EXPERIENCE

Data Analytics Intern — **Feb 2024 - Jun 2024**
Genpact | *Power BI, Python, SQL, Generative AI, ML* — *Hyderabad, India*

- Designed a **Power BI dashboard** for **500K+ HR records** to support workforce planning and retention.
- Supported ML model development to identify **10+ predictive HR factors**, improving decision-making accuracy by **30%**.
- Streamlined data workflows using **generative AI tools**, reducing analysis time by **40%** and accelerating insight delivery..

Undergraduate Research Assistant — **Aug 2023 - Jan 2024**
Dr. Sowmya's lab, Amrita Vishwa Vidyapeetham University — *Coimbatore, India*

- Built a **semi-supervised ResNet-18** model using **4,000+ Sentinel-2A images** for flood detection..
- Achieved up to **98.3% accuracy** and **0.95 F1-score** in classifying turbid flood vs. non-flood images.
- Enhanced model generalization via **transfer learning** on **Louisiana flood 2016 dataset**.
- Reduced false positives in **turbid water** scenarios through **custom preprocessing and augmentation**.
- Co-authored a paper in **Lecture Notes in Networks and Systems**, Springer, 2024. [Link]

PROJECTS

Enhancing Knee Osteoarthritis Severity Level Classification using Diffusion Augmented Images — **Dec 2023**
Proceedings of ICACECS, pp. 266-274, Hyderabad, India [Link]

- Improved knee OA classification accuracy from **68% to 84%** (**16% increase**) using **EfficientNetB3**.
- Enhanced image quality and model performance by applying **CLAHE** preprocessing, boosting accuracy by **8%**.
- Augmented dataset by generating **200 images per class** using **DDIM diffusion models**, reducing class imbalance.

Improving Reinforcement Learning Agent Training using Text-Based Guidance — **Sep 2023**
Proceedings of DravidianLangTech, pp. 33–42, Varna, Bulgaria [ACL Anthology]

- Developed a methodology to train RL agents using text-based instructions in 4 languages.
- Trained embedding networks on **3,504 image-text pairs** enhancing multilingual instruction understanding.
- Trained SAC agent for **50 million steps**, enabling it to generalize to unseen paths with mixed-language instructions.

A Few-Shot Approach to Dysarthric Speech Intelligibility Level Classification Using Transformers — **Jul 2023**
Proceedings of ICCCNT, pp. 1-6, Delhi, India [Link]

- Achieved **85% accuracy** in dysarthria detection using Whisper-large-v2 transformer, improving prior results by **10%**.
- Enhanced multiclass classification accuracy to **67%** with 'words' dataset, outperforming 'letters' & 'digits' datasets by **9%**.
- Efficiently trained a **1.5 billion parameter** model using PEFT and LoRA techniques, reducing computational costs.