AISHWARYA NAIR

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EDUCATION

Masters of Science in Computer Science   *Sept 2023 – July 2025 (Expected)*
University of Massachusetts Amherst
Relevant Coursework: Reinforcement Learning, Machine Learning, Methods of Applied Statistics

Bachelor in Engineering in Information Technology   *Aug 2017 – Sept 2021*
V.E.S. Institute of Technology
- CGPA: 9.14/10
- Stood top 5 in the department of Information Technology 4 times.

WORK EXPERIENCE

Artificial Intelligence Engineer - Heystack Inc.   *Sept 2021 – Aug 2023*
- Identified 23 emotions expressed after eating savory snacks and created a comprehensive lexical ontology to classify the emotions for **PepsiCo** to augment their flavor profile**.**
- Managed a team of 5 for data management and data creation and created an algorithm to classify text based on these 23 emotions to record ~70% accuracy with fine-tuned **MPNet and BERT** models
- Increased accuracy of existing classification framework by **20%** by creating **fine-tuned transformer models** to classify text based on 20 parameters to give insights to **VFCorp (Danner, Dickies).**
- Deployed fine tuned models on **Amazon Web Services (AWS)** as REST API using **Flask, Python, AJAX** and **Javascript** with an **Apache server** to classify ~2000 reviews in each request.
- Created an algorithm to separate clauses out of sentences using **morphological analysis** used to augment the accuracy of the transformer models using **Google Cloud Natural Language API** resulting in 50% shorter clauses.
- Developed a prompt based framework to use **GPT-4** models to automate the ontology designed process resulting in faster deployment of vertical based analytics.
- Deployed an API to train and test GPT-4 models on **OpenAI Fine Tuning API** improving accuracy of the pre-existing models by 2% on average.

PROJECTS

Forest fire prediction using LSTM models — Student team leader   *Jan 2020 - May 2021*
- Developed an LSTM model achieving ~85% accuracy with **Python, Tensorflow and Azure** using data from NASA for India improving the pre-existing prediction mechanisms for Indian vegetation.
- Supervised a team of 4 for data management and data collection and 2 web designers for developing a **Django** application for deploying the model and displaying results.
- Edited and partially created the proposal published under INCET 2021 and for the research grant awarded by the **Microsoft** under the AI for Earth program.

ASSIST — Team Lead   *Sept 2019 - March 2020*
- Fine-tuned Mobile-Net models achieving 83% accuracy in detecting objects in front of the visually impaired user using **Tensorflow, OpenCV and Python**.
- Created a visually impaired friendly web application with speak aloud facility for location tracking and hands free navigation using PHP.
- Led a team of 2 for **IOT** maintenance and 1 for web development.
- One of 49 teams selected for regional finals for e-Yantra Ideas Competition organized by **IIT Bombay** among a total of 1346 teams.