AISHWARYA NAIR

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EDUCATION

MASTERS OF SCIENCE IN COMPUTER SCIENCE *Sept 2023 — May 2025*
University of Massachusetts Amherst
- Relevant Coursework: Reinforcement Learning, Machine Learning, Methods of Applied Statistics

BACHELOR IN ENGINEERING INFORMATION TECHNOLOGY *July 2017 - July 2021*
VESIT
- CGPA: 9.14/10

PUBLICATIONS

FOREST FIRE PREDICTION USING LSTM *May 2021*
S. Natekar, S. Patil, **A. Nair** and S. Roychowdhury
2021 2nd International Conference for Emerging Technology (INCET), 2021, pp. 1-5,
doi: 10.1109/INCET51464.2021.9456113

ACHIEVEMENTS AND AWARDS

- Stood top 5 in the department of Information Technology 4 times.
- Stood in the top 1% of the state in board exams in 2017.
- Stood third in the college in board exams in 2017
- Stood in the top 6% in the country in JEE Mains in 2017
- Awarded a scholarship by the state of Maharashtra in 2013
- Awarded a scholarship by Science foundation for the years 2010, 2011, 2012.

PROJECTS

FOREST FIRE PREDICTION USING LSTM *January 2020 – May 2021*
Student Team Leader
- Awarded a research grant by the Microsoft under the AI for Earth program.
- Created and designed the proposal to secure the grant from Microsoft.
- Achieved ~85% accuracy on LSTM model with Python, Tensorflow and Azure using data from FIIRMS obtained from NASA for India.
- Led a team of 4 for data management and data collection and 2 for web development.
- Designed a web application framework to use the model outputs to view data points on the map using Django.
- Created and managed ~1mil rows on Azure data storage for pre-processing.
- Assisted in writing, editing and presenting the research paper proposed at INCET 2021.

ASSIST (ASSISTIVE SMART STICK FOR INDEPENDENT & SAFE TRAVEL) *September 2019 – March 2020*
Team Leader
- One of 49 teams selected for regional finals for e-Yantra Ideas Competition organized by IIT Bombay among a total of 1346 teams.

- 83% accuracy on an image detection with deep learning to detect objects in front of visually impaired users.
- Led a team of 2 for IOT maintenance and 1 for web development.
- Mapped the most inclusive spaces using the image processing algorithm detecting braille, ramps and textured areas, Google Maps API, HTML and PHP.
- Created a visually impaired friendly web application with speak aloud facility for location tracking

LONG TERM CAPACITY PLANNING (LCP) *September 2019 – March 2020*

Team Leader

- Achieved 86% accuracy to predict the water demand by the city of Mumbai for the year 2030 with Data Mining techniques with Python.
- Super Team awardee of Project Deep Blue organized by Mastek & Majesco.
- Led a team of 4 to supervise data collection and web development.
- Created and presented the application to the board of directors at Mastek & Majesco.

PROFESSIONAL EXPERIENCE

Artificial Intelligence/Machine Learning Engineer Sept *2021– August 2023*

Heystack

- Created a data collection python algorithm to obtain data from major e-commerce websites.
- Researched emotional response by humans on consumption of snacks and compiled a list of 23 emotions along with their definition to identify presence of these 23 emotions from text.
- Led a team of 5 for organization of exhaustive list of emotions evoked by snacks.
- Identified 23 emotions expressed after eating salty snacks and created a comprehensive lexical ontology to classify the emotions for a Fortune 50 company.
- Created an algorithm to classify text based on these 23 emotions to record ~70% accuracy with fine-tuned MPNet and BERT models.
- Managed a team of 5 for data management and data creation.
- Increased accuracy of existing text classification framework by **10-30%** by creating fine-tuned transformer models to classify text based on 20 actionable parameters to give insights to Fortune 500 companies.
- Deployed an API on AWS to service ~2000 requests to classify text based on 20 topics.
- Created an algorithm to separate clauses out of sentences using morphological analysis used to augment the accuracy of the transformer models.
- Created a data collection python algorithm to obtain data from major e-commerce websites.
- Researched emotional response by humans on consumption of snacks and compiled a list of 23 emotions along with their definition to identify presence of these 23 emotions from text.
- Led a team of 5 for organization of exhaustive list of emotions evoked by snacks.

Web Development Intern *Sept 2019*

Ethos CVFL

- Modified the existing website to be more response for more devices and screen sizes.
- Modified the website to be 23% more SEO friendly.
- Designed 3 new web pages consisting feedback forms with HTML, Bootstrap and Laravel.

VOLUNTEER EXPERIENCE

Buddy Mentor *August 2020 – June 2021*

Buddy Mentorship Program

- Guided ten second year students about the opportunities offered by the college like hackathons, placements, course offerings, etc.
- Organized meetings between the mentees and professors to learn about research opportunities.

Sports Incharge *August 2017 – June 2018*

Class Council – Department of Information Technology

- Created teams among first year Information Technology to participate in various sporting events
- Coordinated among the sports council and the class teams about event information and requirements
- Trained a team of 8 for sports like Dodgeball, Basketball, etc.

VOLUNTEER EXPERIENCE (Continued)

Member of publicity and editorial committee July *2018 – September 2018*

Praxis 2018

- Designed flyers and posters for events in the Praxis technical fest
- Coordinated among the organizing teams to maintain registrations for events.
- Published articles in the magazine about the events.

EXTRACURRICULAR ACHIEVEMENTS

- Obtained Nivel C2 - Avanzado (fluent speaker) in Spanish in 2019
- Received Best Speaker Award: Awakening The Scientist 2018
- Runner up in handball house trophy in 2014
- Represented the school for U-12, U-14, U-16 basketball at the district level.
- Captain of Mumbai Strikers Sports Club - Basketball division.