

SHAGUFTA ANJUM

Computer Science Undergraduate Student

📍 Hyderabad, India

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EDUCATION

Bachelor of Technology, Computer Science Engineering

Mahindra University

📅 July 2019 – March 2023

INTERNSHIP EXPERIENCE

Machine Learning Intern

Cognida.ai

📅 August 2022 – Ongoing

📍 Hyderabad

Building a typing assistant tool for scientific writing/research papers using natural language processing techniques to review and suggest appropriate edits. Developing features for paraphrasing and automatic abstract/title generation.

Software Engineer Intern

Dell Technologies

📅 June 2022 – August 2022

📍 Bangalore

Worked in the global supply chain operations team to develop a system for detection of errors in files being uploaded to ECS and prediction of the file upload time using regression techniques.

Software Development Intern

Hitachi Vantara

📅 January 2020 – March 2020

📍 Hyderabad

Designed database schemas, implemented basic UI features, developed REST APIs, unit tested features and deployed the application on an AWS environment.

RESEARCH WORK

Multi-objective NAS for Autoencoders

📅 October 2022 - Ongoing

- Using evolutionary algorithms such as differential evolution to perform neural architecture search for autoencoder architectures.
- Attempting to simultaneously minimize the ratio of number of latent variables to number of input variables and the error in recovery of the original inputs at the output layer.

Recognition of music genre in Indian songs

📅 September 2021 - January 2022

- Used music information retrieval (MIR) techniques to extract low level features directly from raw music audio for Indian songs from 10 different genres.
- Performed feature selection and dimensionality reduction on the features followed by clustering techniques to identify songs of the same genre and observe similarities across genres for song recommendation.

Local Community Membership Detection in Social Networks

📅 June 2021 – February 2022

- Attempted to classify nodes of a social network into communities based on only the local features of the nodes.
- Developed machine learning models to identify community structures and homophily between nodes to predict the community they belong to.

Amazon Product Recommendation System

📅 March 2021 – June 2021

- Designed a recommendation system for Amazon products using memory-based and model-based collaborative filtering techniques and proposed a novel method of graph based recommendation based on similarity between local similarity metrics only.
- Paper accepted for oral presentation at the ICETCI 2022.

SELECTED PROJECTS

Eyes for the Elderly

📅 February 2022 – Ongoing

- Building a product consisting of a wall-mounted camera and a user-friendly mobile application equipped with a voice assistant to help locate misplaced items in a room, with the aim of assisting people with dementia and limited vision.
- Trained and implemented a deep-learning based object detection model to detect objects in a confined environment under varying lighting and occlusion conditions.

Studying the Omicron variant using Twitter network

📅 December 2021 – Ongoing

- Performed ML based analysis on a dataset of tweets related to COVID variant Omicron to understand public perception, user sentiments and patterns of information dissemination.
- Working on modeling the event-based propagation of information on Twitter and the flow of tweets between different geographical locations and social groups.

ACHIEVEMENTS

- 🏆 **Winner - Smart India Hackathon 2022**
Issued by Government of India (Ministry of Culture)
Built an app to promote Indian turbans using augmented reality to showcase LIDAR-scanned 3D turban models
- 🏆 **Academic scholarship - Rs. 3,00,000**
Awarded by Mahindra University for outstanding GPA (2019-2021)

RELEVANT COURSES

Data Structures & Algorithms Database Management Systems Machine Learning Web Programming
Computer Networks Software Engineering Object Oriented Programming Big Data Computing
Social computing Deep Learning Distributed Systems Enterprise software architecture Cryptography

TECHNICAL SKILLS

C C++ Java Spring Boot Javascript ReactJS Node.js Web development Python Flask Django
Machine Learning Pandas matplotlib Numpy scikit-learn Computer Vision Natural Language Processing
Data cleaning and visualization Tensorflow Keras PyTorch Spark SQL NoSQL MongoDB PostgreSQL

EXTRA CURRICULAR

President - Alumni Student Relations Centre - Mahindra University

📅 January 2022 - present

Executive Board Member - IEEE Student Branch Mahindra University and IEEE Student Member

📅 August 2020 - present

Head of Organizing Committee - Mahindra University's Annual Research Symposium

📅 September 2020 - November 2020

Vice President - Street Cause MEC (Student-run NGO) - Women's Empowerment and Education division

📅 July 2021 - June 2022