NEHA JOSHI

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EDUCATION

Texas A&M University | College Station, Texas, USA **Aug 2023 - May 2025**
Master of Science in Computer Engineering **GPA: 4.0 / 4.0**
Coursework: Machine Learning, AI, Statistical Computation, Software Engineering, Operating Systems, Computer Networks

- *Received graduate scholarship for year 2023-24.*
- *Teaching Assistant for IDIS450 - Conducting Machine Learning and Data Science labs for over 200 students (Spring 24).*

Visvesvaraya National Institute of Technology | Nagpur, India **Jul 2016 - Jun 2020**
Bachelor of Technology in Electronics and Communication Engineering **CGPA: 9.18 /10**

- *Department Rank: 2; Received Convocation Gold Medal and Academic Excellence Prize*

WORK EXPERIENCE

Graduate Assistant in Teaching & Research Nov 2023 - Present
Texas A&M University, College Station

- Predicting the influence of spatial attributes within New York's 2030 renewable energy strategy on electricity price fluctuations. Furthermore, assessing temporal factors, such as daily, yearly, and monthly renewable energy generation trends and their correlation with electricity price surges and variability.
- Employing machine learning models and creating statistical optimizations to amalgamate these trends and get insights.

Senior Data Scientist Jul 2020 - Jul 2023
Aspect Ratio, Pune (Consultant for Merck US)

- Achieved ~5x reduction in analysis duration by development of an end-to-end ML pipeline consisting of data extraction, pre-processing, model building, and recommendation generation for optimal product sales timing.
- Identified 25% new customers by conducting in-depth feature attribution analyses to understand pivotal customer characteristics that influence purchase of a product.
- Alleviated product sales backlog stemming from the COVID-19 pandemic by 60% through Time Series Analysis models. Employed clustering and regression techniques on numerous real-time data variables to derive actionable insights.
- Conducted descriptive analytics to understand the product combinations, sequences across 15 years for over 10M people.

SKILLS

Programming Languages	Python, C++, C, JavaScript
Databases	SQL, MongoDB
Frameworks	React, Node, Ruby on Rails, Flutter, HTML, CSS
Tools/ Techniques	MATLAB, Git, Anaconda, Visual Studio, Agile, LaTeX, JIRA
Machine Learning/AI.	Deep Learning, Natural Language Processing, Hugging Face Transformers, Information Retrieval
Data Science	Statistics, Machine Learning, Optimization, Predictive Analytics, Time Series Forecasting, Signal Processing, Data Mining, ETL, Dashboarding, Image Processing
Libraries	Statsmodels, Pandas, NumPy, Scikit- learn, Matplotlib, Plotly, TensorFlow, Pytorch, Seaborn, Gurobi, Keras

MAJOR ACADEMIC PROJECTS

AI based chatbot for NGO's FAQs page Spring 2024

- Engineering an AI-powered chatbot leveraging natural language processing to streamline user engagement and provide instant, personalized responses to tailored FAQs for an NGO based in India.

PhD Annual Review System for TAMU CSCE Department | Texas A&M University Fall 2023

- Developed a PhD progress review system based on Ruby on Rails for professors and advisors to track and rate the overall progress of all the PhD candidates in TAMU CSCE department (deployed using Heroku).
- Implemented software features like Creating Student Profiles, Logins, Submission Due Date Alerts, Award Nominations, Flagging Students with Unfulfilled Requirements, Faculty Comments, Admin Dashboard etc.

Human Activity Classification Using on-body Miniaturized Antennas | VNIT, Nagpur Fall - Spring 2020

- Successfully classified diverse human activities utilizing a specialized state of the art Antenna-based Wrist Band. Deployed the end-to-end Machine Learning based system working on real time data to perform classification. Published 3 research papers in SCIE peer reviewed journals and high impact conferences.
- Achieved an overall accuracy of 98.5% for classification of 6 Human activities specific to physiotherapy by employing a range of classification algorithms.

Smart Water Bottle- An IoT product for Health Care | VNIT, Nagpur Spring 2018 - Spring 2020

- Designed and developed cutting-edge BLE based bottle prototype with integrated functionality to monitor user water consumption. Performed battery optimization resulting in an extended rechargeable device battery life of up to 10 hours.
- Facilitated real-time data exchange between bottle and mobile by development of a cross-platform mobile application.

LEADERSHIP EXPERIENCES

- Represented VNIT at the 10th conference on MIPs at Israel; 26th NCC at IIT Kharagpur and IISF at Chennai.
- Mentored a team of 4 associates at AR along with performing hands-on Data Science projects as a Senior Data Scientist.
- At AR: Conducted 40+ lateral interviews, trainings on SQL, ML, mentored an intern for MERN Application Development.
- Mentored a batch of 20 students at VNIT, under the Student Mentor Program for their holistic growth in the campus.
- Worked for the NGO- Niche Advocacy Foundation to promote Emotional and Mental Fitness. Served as a social team member as well as Database Manager for the organization.
- Selected as a National Delegate among 30 members for an International Youth Exchange Program by Government of India in 2020.