# Nishi Poddar

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## EDUCATION

# MS in Computer Science

University of Massachusetts Amherst

Expected Graduation - Dec 2024

Massachusetts, USA

# Bachelor of Technology in Computer Engineering (Honors)

NMIMS University | GPA 3.88/4.0 (Meritorious List)

Jul 2019 – May 2023 Mumbai. India

Minor: Machine Learning and Data Analytics

## **PUBLICATIONS**

# A Review on Autonomous Vehicles: Progress, Methods and Challenges

Link

- Researched ML algorithms like CNN, YOLO, LiDAR for real-time environmental perception in driving scenarios.
- Analysed Q-learning and Hidden Markov AI models to predict driver intent and navigate complex driving situations.
- This paper was published in July 2022 in the Electronics Journal, MDPI receiving 120+ citations.

#### EXPERIENCE

# Software Development Intern

May - Jun 2022

Metta Social Solutions Pvt. Ltd. — Pune, India

- Created an optimal data pipeline using **Python** and **SQL** for over **20,000** NGOs to generate actionable insights.
- Utilized UIPath and MySQL for automated data scraping and API calls, boosting the data collection efficiency.
- Designed a sophisticated process to perform feature extraction for due diligence of NGOs and CSR projects using sentiment analysis to analyze news articles and random forest like models to predict fraud detection.

Team Leader Aug 2019 - Jun 2021

Project Vishuddh, Enactus — Mumbai, India

- Drove social impact by empowering **30+ women** in establishing a **sustainable** detergent and sanitation business.
- Implemented strategic supply chain optimizations, resulting in a substantial 40% reduction in production costs.
- Led Research and Development initiatives, fostering innovation and ideation to uplift rural artisans and strategically identify untapped markets for their products.

#### Projects

Mar 2023 Code Summarization

- Created an NLP tool using LLMs CodeBERT and RoBERTa for automatic real-time English summaries of C++ and **Python** code.
- Enhanced project collaboration by optimizing algorithms, achieving an accuracy of **0.83** through cross-validation.

#### Hairstyle Recommendation System

- Developed a Flask-based face detection app using MLP classifier achieving 0.74 accuracy over KNN and LDA models.
- Implemented hairstyle recommendation system based on trends and preferences using OpenCV enhancing UX.

## Movie Ticket Booking System

Mar 2021

- Developed a **Django**-based ticket booking portal, enhancing data validation and management through **MySQL**.
- Implemented a movie recommendation system using SVM with a linear kernel, using purchase history to increase user engagement and satisfaction.

# TECHNICAL SKILLS

- Skills: C, C++, Java, Python, C#, SAS, SQL, Pytorch, Git, MATLAB, Shell scripting, Scala, Power BI
- Coursework: Data Structures, Design and Analysis of Algorithms, Relational databases, Artificial Intelligence (AI), Machine Learning, NLP, Neural Networks, Data Visualization, Unix programming, Operating Systems, Cybersecurity
- Certifications: Data Science and visualization specialization (IBM), Machine Learning (University of Washington)

### ACHIEVEMENTS

- Awarded Mitacs GRI Summer Research Intern grant from Dalhousie University, Canada in 2022 to assist in research on the effects of the pandemic on software professionals
- Secured Runners-up in National-level Coding competition, ALGORYTHM in 2021
- Finalist in National-level Business planning competition conducted by IIM Indore for the strategic presentation of social entrepreneurship venture, Project Vishuddh, in 2020