Noopur Nishikant Zambare

Final Year Undergraduate | Mechanical Engineering | Indian Institute of Technology, Jodhpur, (India)

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EDUCATION

Indian Institute of Technology Jodhpur   Jodhpur, India | Expected: 2024
Bachelor's in Mechanical Engineering
Minor in Data Science

- Cum. GPA: 7.53/10 (Till Sem. VI)
- IEEE Student Branch, IIT Jodhpur
- IEEE Women in Engineering

Green Valley High School   Vadodara, India | Grad. Mar 2020
Higher Secondary School | CBSE

- Percentage: 95.6 %

SKI School   Vapi, India | Grad. Mar 2018
Senior Secondary School | CBSE

- Percentage: 95.6 %
- Students' Council Head

INTERNSHIPS / EXPERIENCE

MITACS GLOBALINK RESEARCH INTERN AT UNIVERSITY OF CALGARY
| Research Internship | May 2023 - August 2023 | Calgary, Canada

- Project: Return on Investment of data analytics
- Impact: The crux of this project is to develop a tool to compute "How much data analytics is enough?".
- ROI is calculated by analysing text data with the help of NLP and Requirements Dependency Extraction.
- Web App deployed on AWS using EC2 and CodePipeline.
- Tech stack: Data Science, NLP, Cloud Computing (AWS), React JS, Node JS, Flask, Machine Learning, Deep Learning,

AMAZON ML SUMMER SCHOOL'22
| Amazon | July 2022 | Apprenticeship | Certificate ↗

- Competed with the engineering students in India in programming skills, logical reasoning, mathematics and machine learning assessments and was selected among the top few students for this training session.
- Hands-on: Supervised learning, Deep neural networks, Probabilistic Graphical models, Dimensionality Reduction, Unsupervised learning, and Sequential models.

AUTOMATION EDGE
| Machine Learning Intern | June 2022 - July 2022 | Remote

- Performed text analysis and intent recognition using Named Entity Recognition and Part Of Speech tagging.
- Impact: The model predicted the intents for the customer complaints dataset of banks and the analysis gave an idea about the bigrams present in the queries.
- Tech stack: Machine Learning, Deep learning, NLP, Spacy, Textacy

AUTOMATION EDGE
| Data Science Intern | Dec 2021 - Jan 2022 | Remote

- Performed IT Ticket Discovery and Exploratory Data Analysis to identify automation opportunities.
- Designed ChatBots for HR using BOT Framework Composer and integrating knowledge base with Microsoft Azure.
- Impact: Different opportunities for Customer Service Automation were recognized after data analysis. ChatBot automated the response to employees' queries.
- Tech stack: Machine Learning, Power BI, Microsoft Azure, Bot Composer Framework
- Algorithms used: Kmeans clustering, advanced statistics

PROJECTS

AIOPTIMIZER - A REINFORCEMENT LEARNING-BASED SOFTWARE PERFORMANCE OPTIMISATION PROTOTYPE FOR COST MINIMISATION
| Reinforcement Learning | Software Development | arXiv:2307.07846 | Link ↗

- Developed prototype for AIOptimizer, a software performance optimisation tool based on cost reduction
- Compared various Software Development Life Cycles to determine the ideal cycle for AIOptimizer
- Designed recommendation system based on reinforcement learning for cost minimisation
- Developed architecture and workflow of the AIOptimizer
- Tech stack: Reinforcement Learning

INCORPORATING DEEP Q - NETWORK WITH MULTICLASS CLASSIFICATION ALGORITHMS
| Deep Reinforcement Learning | arXiv:2307.03908 | Link ↗ | | GitHub ↗

- Attempted testing the way supervised machine learning techniques and deep q networks perform together on predicting financial distress in business
- Investigated whether deep reinforcement learning techniques could assist multiclass classification to increase prediction accuracy
- Comparative analysis for performance of various baseline ML models to classify different levels of financial distress
- Tech stack: Deep Reinforcement Learning, Supervised Machine Learning, Python

PROGETTO - PROJECT MANAGEMENT WEBSITE
| Web Development | GitHub ↗

- Worked under the guidance of the School of Entrepreneurship and Management, IIT Jodhpur to develop a platform to manage all the ongoing projects on a University Campus.
- Designed an API for adding, editing and deleting the project by the professors
- Robust authentication system added to secure the project data
- Tech stack: MongoDB, React JS, Node JS, HTML, CSS, Postman

VEHICLE DETECTION IN AERIAL IMAGES
| Deep Learning | GitHub ↗

- Used the benefits of transfer learning to train VGG16 by using the pre-trained weights of the ImageNet dataset
- VEDAI dataset contains 9 classes of objects, but the project focused on small vehicles, namely the car and pickup classes
- Experimented with grey and coloured images both. Model score = 0.60
- Tech-stack: Python, Deep Learning

PRODUCT DEMAND FORECASTING WITH ML
| Fintech | GitHub ↗

- Using ML-trained model to predict sales based on previous 4 days.
- Model score: Random Forest Regression ->0.679 and XGBoost Regression->0.556.
- An automated dashboard built using Power BI, to provide quick insights into products in order to enhance data-driven decision-making.
- Tech-stack: Machine Learning, Python, Random Forest Regression, XGBoost Regression, Power BI

LINKS

- LinkedIn : noopur-zambare ↗
- GitHub : noopur-zambare ↗
- Portfolio : noopur-zambare ↗

SKILLS

Data Science • Machine Learning • Deep Learning • Data Analytic • Data Structures Algorithms • Cloud Computing • SQL • Business Intelligence

Programming	Machine Learning	Web Technology	Others
• Python • R • C • C++	• NLP • Big Data • Pytorch and TensorFlow • ETL • SpaCy • SciPy	• MySQL • MongoDB • Node JS • React JS • JavaScript • Flask • HTML • CSS	• GitHub • Linux • Latex • Figma

COURSEWORK

- Data Structures and Algorithms
- Advanced Machine Learning
- Introduction to Computer Science
- Introduction to Data Science
- Data Base Management System (NPTEL)

- Software Engineering (NPTEL)
- Time Series Analysis
- Introduction to Machine Learning
- Smart Manufacturing
- Statistical Inference & Simulation Techniques

- Calculus and Linear Algebra
- Signals and Systems
- Scientific Computing
- Production & Operation Management

ACHIEVEMENTS

- Among the top students to select for Amazon ML Summer School 2023.
- Among the top 1% of 1 million applicants in Joint Entrance Examination 2020.
- Among the top 1% of 1.3 million in CBSE Secondary and Higher Secondary Examination.

EXTRACURRICULAR & VOLUNTEERING

- Member of the **Rotaract Club** of IIT Jodhpur and has volunteered in various camps at the campus.
- **Community Member** at Women of IIT & Women in Technology (Aspire For Her)
- Part of Inter IIT - Tech Meet 11.0, High Prep Team. Worked on developing the **prototype of a tech-based startup for GradCap**. Led the Machine Learning Team. Project - NyAI - Sign, Secure, Simplify: The Future of Contract Management
- Led a team of three students in the Freshman Year of B-tech and developed the prototype for an **Eco-based startup for the Hult Campus Challenge**. Won first prize in the challenge and represented IITJ in the Regional (Asia) Summit.
- Assistant Head (Team Media) in Prometeo - Technical & Entrepreneurial Fest of IIT Jodhpur.