

Nupur Rathod

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SUMMARY

As a graduate student pursuing a Master's degree in Computer Science with a specialization in Data Science, I have established a track record of exceptional execution and delivery. My strong communication and meticulous attention to detail enhance my ability to manage multiple projects under pressure. I excel at presenting complex subjects to diverse audiences. Known for my integrity, respect, and teamwork, I specialize in software development, innovative data analysis, and Data Science.

EDUCATION

- Master of Science in Computer Science (Major in Data Science), Trinity College Dublin** 09/2023 – 10/2024
Dublin, Ireland
- Core Modules: Machine Learning, Data Analytics, Advanced Software Engineering, Optimization of Algorithm, Security and Privacy, Computer Vision, Artificial Intelligence, Statistics
- Bachelor of Engineering in Information Technology, Savitribai Phule Pune University** 06/2018 – 08/2022
India
- Core Modules: Programming Fundamentals, Data Structures and Algorithms, Computer Vision, Database Management Systems (DBMS), Software Engineering, Machine Learning, DevOps, Cloud Computing

PROFESSIONAL EXPERIENCE

- Software Engineer Intern, Skippio** 09/2024 – present
Dublin, Ireland
- Developing the Skippio web app using Next.js, focusing on creating a highly responsive and user-friendly interface.
 - Implementing a professional dashboard on the web app that displays key performance indicators (KPIs) for concessionaires at stadiums, events, and concerts, enhancing operational insights and decision-making.
 - Working on crowd analytics using YOLO to analyze crowd patterns and behaviors, aimed at improving venue efficiency by reducing queue times.
- IT Intern, Creddos Inc** 01/2022 – 06/2022
India
- Developed complex, single-page web applications using React.js and ECMAScript 6 for the frontend and Django for robust backend solutions, focusing on dynamic, responsive interfaces that enhanced user engagement and system efficiency.
 - Managed the full development lifecycle, from concept to deployment, ensuring high-quality delivery and seamlessly integrating REST APIs for improved backend communication.
 - Led key projects including a restaurant booking app and financial technology solutions, boosting operational efficiency and user satisfaction.
- Machine Learning Operations Intern, LinuxWorld Informatics Pvt Ltd** 05/2021 – 08/2021
India
- Completed training and internships in machine learning and DevOps, mastering Python, TensorFlow, OpenCV, Keras, and CI/CD pipeline management with Git, Docker, and Kubernetes for efficient model deployment.
 - Conducted data analysis and machine learning model deployments, extracting insights and visualizing them with Tableau dashboards. Developed predictive models for real-time production environments.
 - Implemented projects like automated text retrieval and sentiment analysis using NLP, license plate detection, and Social Distance Monitoring Systems, deploying all with Docker and Kubernetes for scalability and management.

PROJECTS

- Determining the Impact of Maintenance Treatment Duration on ANCA Vasculitis Outcomes**
- As part of the ADAPT project and for my thesis, conducted counterfactual analysis to investigate the individual treatment effects (ITE) of maintenance treatment durations on relapse rates in ANCA-associated vasculitis, aiming to develop personalized treatment strategies.
 - Developed a robust statistical model for predicting ITEs, factoring in patient demographics such as age, gender, and smoking status to enhance the precision of treatment effectiveness assessments.
 - Translated ITE estimates into a practical clinical decision support tool to guide clinicians in optimizing treatment durations for individual patient care in clinical settings.
- Sustainable Dublin City Management**
- Led the development of Dublin's Sustainable City Management webapp, integrating modules like dynamic bus rerouting, real-time bike stand availability, pollution level monitoring and prediction, and waste management, enhancing city management and public service efficiency.
 - Managed Agile workflows to deploy real-time urban management features, significantly improving the user experience across Dublin's transportation and environmental monitoring systems.
 - Implemented CI/CD processes and robust monitoring solutions, ensuring system reliability, operational continuity, and proactive enhancements for long-term stability and effectiveness.
- EngageSmart: Adaptive Social Networking Platform**
- Developed a personalized social media platform using Django, integrating a custom recommendation system that dynamically adjusts user profiles based on interactions with tweets.
 - Implemented robust user management features including registration, authentication, and profile customization, enhanced by a friend recommendation system using cosine similarity to identify shared interests.
 - Created a content discovery module employing K-means clustering to group similar tweets and utilized OpenAI's API for real-time tweet scoring, enhancing user engagement and content relevance.
- FullStack Accommodation Booking App**
- Developed a full-stack accommodation booking platform using React.js for the frontend, enabling users to browse, book, and manage stays with seamless authentication and payment integration.
 - Implemented responsive UI components with Tailwind CSS and managed state efficiently using React hooks.
 - Integrated a RESTful API with Axios for dynamic data handling, supporting user registration, login, and real-time booking management.

SKILLS

- Programming Languages/ Framework: - Python, JavaScript, jQuery, ReactJS, ECMAScript 6, Django
- Database: - MySQL
- Cloud Technologies: - AWS
- Machine Learning Libraries/ Framework: TensorFlow, PyTorch, Scikit-learn, Pandas, NumPy, Keras, XGBoost, Matplotlib, YOLO, OpenCV, Selenium, BeautifulSoup, NLTK
- MS Office Stack :- MS Excel, MS Word, MS Powerpoint

CERTIFICATES

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|--|---|--|
| • Google Data Analytics Professional Certificate | • Stanford Machine Learning Specialization | • The Web Developer Bootcamp Certificate - Udemy |
| • Cloud Computing Basics (Cloud 101) | • Meta Front-End Developer Professional Certificate | • Complete Python Bootcamp by Dr. Angela Yu |

EXTRA-CURRICULAR ACTIVITIES

Vice President of Information Technology Department

2019 – 2022

- Demonstrated exceptional leadership by organizing SparkTech, the largest college fest, and various technical fests for the IT department, engaging over 3,000 students and enhancing community involvement.
- Served effectively as a student body representative, addressing over 200 student queries to the administration, facilitating improved communication and problem resolution.
- Coordinated over 20 academic and professional talks and programs, significantly enhancing the educational and professional environment of the IT department.

India

Volunteer, Police Mitra (Government NGO)

2017 – present

- Conducted campaigns on Women's health awareness and village cleaning with over 50 volunteers and led effective town planning initiatives to improve infrastructure, while collaborating with Police Mitra NGO to leverage data-driven insights in schools and universities, creating safer environments for women and promoting women's safety.

India

Smart India Hackathon 2020

2020

- Secured a position in the top 300 out of over 200,000 participants in the Smart India Hackathon 2019, demonstrating exceptional problem-solving skills and innovative thinking in competitive software development.

Publications

The Paper **Developers Simplicity by Automating Code** published in **International Journal of Scientific Research in Engineering and Management (IJSREM)** Volume 06, Issue 06 June 2022