

Devanshu Sinha

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Academic Qualifications

Year	Degree/Certificate	Institute	CGPA/%
2021 - 2025	B.Tech in CSE (Spec.Big Data)	SRM Institute of Science and Technology, NCR Campus	9.00/10
2021	CBSE (Senior Secondary School)	Mount Carmel School	90.2%

Work Experience

- **Junior ML Engineer, Omdena Local Chapter** (*December 2022- January 2023*)
 - Worked in two local chapters - Kenya and Paris Chapter
 - Collaborated with a team of 50 Machine Learning engineers to develop tools to analyze and understand the change of green areas in Nairobi and developing a conversational chatbot.
 - Task manager for fine-tuning the NLP conversation model
 - Task co-lead for extracting satellite data and training a time series model.
- **Project Intern, IBM** (*December 2020*)
 - Internship with IBM iX engineers from Sacramento, US in designing and scaling AI systems
 - Created functional idea flow and prototype within 2 weeks.
 - The prototype was showcased to Central Board of Secondary Education Head and IBM India Head.

Key Research Projects

- **Improvising existing Machine Learning algorithms that assist in early detection of Parkinson's Disease** (*Ongoing*)
 - This research paper aims to improvise and add to the idea of early detection of Parkinson's Disease.
 - Experimental results obtained from existing ML Algorithms are being thoroughly examined and reviewed.
- **NLP Model for Twitter Media Posts** (*Ongoing*)
 - This research paper aims to develop a predictive model to predict the degree and type of response garnered by advertisement posts amongst Twitter public.

Key Projects

- **Monitoring Change in Urban Green Areas and Tree Cover using Satellite Imagery (Omdena)**
 - AI solution involves the extraction of data from satellite imageries hosted on cloud-based platforms to enable comparison of city statistics, the project will utilize the urban boundaries generated through the harmonized city definition approach (JRC-UrbanCentresDatabase).
 - Study area: Map of Nairobi City
 - Domain: Satellite Imagery (Remote Sensing and GIS)
- **Conversational AI Chatbot for the Elderly (Omdena)**
 - Virtual caregiver system that extracts the expression of mental and physical health states through dialogue-based human-computer interaction to support tailored treatment for senior persons.
 - Study area: Paris Region
 - Domain: NLP Conversation Modelling and Chatbot Deployment
- **Movie Recommendation System (link)**
 - Built and deployed an end to end application using Python, Streamlit to sort through and calculate the most appropriate movie interests of a user using 2-D vector model graphs.
- **Principal Component Analysis (PCA) : Wine Dataset (link)**
 - Processed the wine dataset from scikit-learn and performed PCA for analysis and observation.
 - Performed basic regression to understand the dataset.
- **Extensive Waste Management System (link)**
 - Developed an AI project for community to solve waste hazards
 - Implemented a full working software and hardware components.
 - Project involved Dataset collection and custom training with heavy pre-processing

Technical Skills

- **Programming Languages:** C, C++ , Python, HTML, CSS, JavaScript
- **Frameworks:** NumPy, Pandas, Scikit Learn, Matplotlib, Seaborn, OpenCV, Tweepy, NTLK, TextBlob
- **Developer Tools:** Google Colab, Github, AWS Console, MATLAB
- **Communication:** English, German(novice), Hindi

Positions of Responsibility

- **AI Team, SRMIST GDSC** (2022-2023)
 - GDSC aims to encourage students to develop a skills required by current industry by organizing hackathons, workshops and fostering strong networks.
 - AI team works on collaborative projects and release them for open use.
- **Core Team Member, CodeChef SRM NCR Chapter** (2021-2023)
 - CodeChef SRM NCR Chapter aims to encourage students to develop a strong and sturdy environment for competitive coding and provide exposure for professional development and research.
 - We achieve this by organizing events like quizzes, Hackathons, long challenges, coding contests & seminars.
 - I manage the overall technicalities & functioning of the College Chapter. In addition, I also work with the Competitive Programming Team and design questions for coding contests that are conducted on CodeChef.
- **Core Team Member / Microsoft Learn Student Ambassadors Club SRM-NCR** (2021-2022)
 - Development Team - Design and manage website
 - Event Organisers - Organise events to support MLSA's cause
 - Taking workshops to help developer student community.
- **President / HayWire Tech Club** (2019-2021)
 - Organized a tech symposium with participants from more than 55 schools.
 - Managed 13 events spanning over 2 weeks.
 - Created and managed club website, social handles, and teaser.
 - Have represented and won for the club in more than 50 events over 3 years.

Teaching Experience

- **Git-It-Done**
 - Hosted and conducted workshop to introduce participants to GitHub and git.
- **Python 101**
 - Hosted and conducted introductory lectures in this workshop on Python and its use in AI and received an enthusiastic response.

Key Courses Taken

Artificial Neural Networks	Computer Vision
Discrete Mathematics	Insights from Data with BigQuery
Design and Analysis of Algorithms (+LAB)	Machine Learning with MATLAB
Data Structure and Algorithms (+LAB)	Object Oriented Programming & Design (+LAB)
Computer Organization & Architecture (+LAB)	Neural Networks and Deep Learning
Transforms and Boundary Value Problems	Advanced Calculus & Complex Analysis
MATLAB for Data Processing and Visualization	Python for Data Science & Machine Learning

AWARDS & ACHIEVEMENTS

- AWS AI and ML Scholarship Recipient
- Qubit by Qubit's Introduction to Quantum Computing Scholarship Recipient
- Bagged **3rd** Position in Ideathon 2022 organized by SRM NCR Campus
- Finalist in AWS DeepRacer Student League – India 2022 (**National Rank 8 out of 1600+**)
- **Second Position** Smart India Hackathon College Level (2022)
- **Seventh** Position in CBSE-IBM AI Sewa National Hackathon
- **Finalists** in International IBM EdTech Challenge