Mokesh Nagpal

Aspiring Data Scientist

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Summary

A fluent coder and a curious learner with a strong desire to broaden skills beyond an academic foundation, coupled with confident communication and leadership potential.

Research & Patents

- **Sustainable Elevator (Applied Feb '24):** IoT prototype with energy regeneration and a web dashboard.
- **Smart Pillow (Pat. No. 202311080891; Dec '23):** IoT/ML pillow that auto-adjusts to user posture.
- **Smart Container (Pat. No. 202311020732A; Mar '23):** IoT solution for automated measurement of flowable materials.
- **Smart Room (Pat. No. 202311042366A; Mar '23):** IoT energy-saving mechanism based on human detection.

Projects

- **Indus Valley Script Analysis (Mar '25):** Applied image segmentation and analysis to Indus Valley seals.
- **Moisture Detection & Prediction (Sep '24):** Built an ML-driven Flask app for NPK and moisture sensors, providing real-time predictions and a user interface.
- **Hard-Coded MLP (Aug '24):** Implemented a foundational multi-layer perceptron in Python to demonstrate neural network fundamentals.
- **Adaptive Traffic Management (Jun '24):** Developed congestion-reduction software using deep learning and image processing with a Flask admin panel.
- **Climate Change Analysis (Apr '24):** Performed R-based preprocessing, ARIMA forecasting, and clustering on global climate indicators.
- **Death & Wars Visualization (Oct '23):** Visualized the COW dataset using R and Tableau to explore correlations between conflicts and fatalities.
- **E-commerce Website (Dec '22):** Developed a full-stack PHP/MySQL site as part of a college revenue program.
- **C Tic-Tac-Toe Game (Aug '22):** Created a GUI-based C game featuring single- and multiplayer modes.

Education

Degree	Institute	CGPA	Year
Master of Computer Applications	Birla Institute of Technology, Mesra	8.93	Aug 2024–Present
Bachelor of Computer Applications	Lovely Professional University, Phagwara	9.43	Aug 2021–Jul 2024

Skills

Technical Skills
- Python, R, C, C++, MicroPython, SQL, PHP, JavaScript
- Flask, Tkinter, HTML5, CSS3
- MySQL, Firebase
- Machine Learning, Deep Learning, Tableau
- Data Structures & Algorithms

Power Skills
- Public Speaking
- Generalization & Modularity
- Problem Solving
- Rational Thinking
- Leadership & Teamwork

Certifications

- Data Analysis with Python (IBM; Dec '24)
- Hands-on ML with Python (HRDC LPU; Dec '23)
- Data Structures (GeeksforGeeks; Sep '23)
- Data Visualization with Tableau (CPE-LPU; Aug '23)

Achievements

- Winner, Data Science Hackathon (DSS, BIT Mesra; Sep '24): A 24-hour data science competition.
- Secured 1st position, War of Words (LPU; Sep '23): Debating & team work competition

Volunteer Experience

- **Placement Coordinator, BIT Mesra:** Organized recruitment drives and secured opportunities for students.
- **Vice President, Hostel 4 Committee, LPU:** Led welfare initiatives and events for residents.
- **Class Representative, LPU:** Liaised with faculty on academic matters.
- **SSB Interviewee:** Short-listed for leadership and assessment rounds.

Co-curricular Activities

- Winner, INCREDIBLE-8 (LPU, Apr '22): A sustainable development based competition