Riya Singh

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EDUCATION

VIT Bhopal University   **09/2022 – 05/2026**
B.Tech in Computer Science - 8.83 GPA   *Bhopal, India*

TECHNICAL SKILLS

- **Programming Languages:** Python | **Libraries & Tools:** NumPy, Pandas, Scikit-learn, OpenCV, Git | **Miscellaneous:** N8N, Firebase, MySQL

PROJECTS

DataGlow   **03/2025**
Technologies: Python, Streamlit, Scikit-learn, Pandas, NumPy, Plotly, CSV, Random Forest, SVM

- Designed a comprehensive data preprocessing and machine learning web application using the Streamlit framework to automate data cleaning, transformation, and predictive modeling workflows for CSV and Excel datasets.
- Developed an interactive, multi-page Streamlit application featuring scikit-learn's Random Forest and SVM algorithms. The tool automates model training (utilizing a 70-30 train-test split), provides instant predictions, and visualizes results with accuracy scores and confusion matrices.
- Deployed an end-to-end ML pipeline featuring data upload validation, preprocessing operations (duplicate removal, missing value handling, normalization), model selection interface, and achieved on-demand prediction functionality with downloadable processed datasets in CSV format.

Stock Prediction using LSTM   **09/2024**
Technologies: Python, NumPy, Pandas, PyTorch, Scikit-learn, LSTM

- Engineered a predictive time-series model utilizing over six years of historical stock data (2002-2008) to forecast future closing prices and identify market trends using deep learning techniques.
- Executed a stacked Long Short-Term Memory (LSTM) neural network with Keras and TensorFlow, configured with a 15-day lookback window, 50 LSTM units per layer, 0.2 dropout rate, and Adam optimizer with 0.001 learning rate, processing normalized financial indicators including Open, High, Low, Close, and Volume.
- Evaluated model efficacy by tracking Root Mean Squared Error (RMSE) on the test dataset and visualized the predicted versus actual stock prices to confirm the model's forecasting accuracy.

EXPERIENCE

iOS Club | Technical Co-Lead   **10/2023 – 05/2025**

- Assisted in organizing and coordinating Techastra (Dec 2023), a flagship technical event with 150+ participants
- Appointed as Technical Co-Lead in April 2024, leading project development, driving innovation initiatives, and mentoring team members

CO-CURRICULAR

Smart India Hackathon 2024 | National Finalist   **12/2024**

- Selected among the top 6 national teams for the hardware problem statement: *Development of a Cost-Effective Myoelectric Prosthesis*
- Fabricated a transradial prosthetic hand from recycled 3D-printed materials and low-cost sensors, achieving a 92% cost reduction

HOBBIES & EXTRA-CURRICULAR

- Engage in daily practice on Elevate and Lumosity to improve cognitive skills such as memory, focus, and processing speed
- Practice Sudoku to enhance strategic planning and attention to detail
- Trained 10m air pistol shooter with competitive experience up to the North Zone level