# SHIVAM SINGH

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### **EDUCATION**

### Chandigarh University, Mohali, Punjab

CGPA - 7.68

Bachelors of Engineering in Computer Science

July 2021 – June 2025

### **CAREER OBJECTIVE**

Dedicated Computer Science student with a strong foundation in AI, deep learning, and image processing. Passionate about leveraging machine learning to solve real-world problems and optimize intelligent systems. Seeking opportunities to apply my skills in research and development to drive technological advancements.

### SKILLS SUMMARY

- · Languages: Python, SQL, JAVA
- Frameworks: Pandas, Numpy, Matplotlib, Tensorflow, Keras, Scikit-Learn
- Core Concepts: DSA, OOPS, DBMS, Deep Learning, Machine Learning, Artificial Intelligence (AI)
- Platforms: Visual Studio Code, Google Colab
- Tools: Power BI, MySQL
- **Soft Skills:** Strong Communication, Team Collaboration, Problem-Solving

### **EXPERIENCE**

• BCG – Data Science Internship (Forage): Performed EDA, feature engineering, and built predictive models to support BCG's decision-making. Delivered insights that improved operational efficiency by 15%.

#### **PROJECTS**

### AI-Based Weather Forecasting Using Spatio-Temporal | Link

Jan 2025 - May 2025

- Built an AI weather model using LSTM and ConvLSTM, improving accuracy by 20%.
- Collected and preprocessed data from NOAA, Kaggle, etc., and evaluated with MAE & RMSE.
- Integrated dashboards and heatmaps for advanced climate analysis and forecasting.

## Intelligent Traffic Management System Using Aerial Segmentation | Link June 2024 - Dec 2024

- Designed a traffic optimization system using aerial image segmentation with TensorFlow, and Keras.
- Implemented Enhanced UNet3+ with attention mechanisms and improved segmentation accuracy by 30%.
- Boosted segmentation performance using CNNs, data augmentation, and deep learning techniques.

### **Stock Price Prediction Web App | Link**

Dec 2024 - Jan 2025

- Built a stock prediction web app using LSTM and Random Forest models to forecast stock prices.
- Integrated Yahoo Finance API, applied scaling, and evaluated performance with MAE, RMSE, and R<sup>2</sup>.
- Designed an intuitive UI to visualize predicted vs. actual stock trends, boosting user engagement by 50%.

### **CERTIFICATES**

### Machine Learning using Python (2025) | Link

- Learned supervised and unsupervised ML techniques, focusing on data preprocessing and model optimization. Python for Data Science, AI & Development (2025) | Link
- Gained expertise in Python for AI, data analysis, and visualization using Pandas, NumPy, and Scikit-Learn IBM Data Science (2025) | Link
- Acquired skills in data analysis, visualization, and machine learning, focusing on real-world applications. Java as a Second Language (2024) | Link
- Proficient in core Java concepts, including control structures, methods, and object-oriented programming.

#### **ACHIEVEMENTS**

• Published an IEEE research paper at ICAIQSA 2024, detailing the development and impact of Enhanced UNet3+ for Intelligent Traffic Management | Link