



## PRATEEK SARNA

Data Science | ML | Software Development  
Bachelors of Engineering  
Computer Science & Engineering  
Chandigarh University

+91-9911400546  
prateeksarna24@gmail.com  
Code360 Profile  
Prateek\_Sarna\_24  
PrateekSarna-24

### EDUCATION

---

- Chandigarh University** 2021-2025  
*Bachelors of Engineering - Computer Science & Engineering* CGPA: 8.16

### TECHNICAL SKILLS AND INTERESTS

---

**Languages:** C++, Python, SQL, Java  
**Competitive Programming:** 700+ DSA problems solved (LeetCode, GFG, Code360)  
**Developer Tools:** Unix, VSCode, Docker, Git  
**Frameworks:** Langchain, FastAPI, Streamlit, Pydantic, Keras, Tensorflow, SciKit Learn, SQLite  
**Areas of Interest:** Software Development, Data Science, Machine Learning, AI Development  
**Soft Skills:** Problem solving, Critical thinking, Communication, Time management

### PERSONAL PROJECTS

---

- AI-Powered Interactive Portfolio** 2025  
*Streamlit • FastAPI • LangChain • Docker*
  - Developed an **end-to-end AI-powered portfolio**, integrating a **FastAPI backend with LangChain + Together API** and a **Streamlit frontend** for interactive exploration.
  - Implemented a **portfolio chatbot** that answers queries about skills, projects, and experience using **LLaMA-3 (70B) via LangChain**.
  - Containerized the system with **Docker** and deployed a fully functional **backend-frontend architecture**, ensuring scalability and modular design.
  - Enhanced user engagement with **live resume downloads, contact form (WhatsApp integration)**, and responsive UI features.
- Neural Machine Translation** 2023  
*Deep Learning | Generative AI*
  - Engineered an **end-to-end machine translation system** achieving **85%+ accuracy** for **French-to-English translation** using **Deep Learning**.
  - Implemented an **encoder-decoder architecture** with an **attention mechanism**, optimizing performance on large datasets.
  - Conducted exploratory data analysis, cleaned and preprocessed data, and trained the model on 10 epochs due to computational constraints.
  - Evaluated translation performance using BLEU score metric and showcased results through a plotted graph.
- Insta Bot** 2023  
*Web Scraping*
  - Developed a **high-performance automation tool** using **Selenium**, capable of scraping **10,000+ Instagram comments**, automating searches, liking, and commenting.
  - The various features of this Project are as follows - Log In / Log Out , Searching a profile, Opening a profile, Getting the followers count, Liking / Unliking first 'N' posts of an account, Getting the status of a story.
  - Integrated **API calls for real-time data analysis**, significantly improving social media automation.

### RESEARCH PAPER

---

- Advancements in Emotion Recognition : A Deep Learning Approach to Audio Analysis** Dec 2023  
*Paper ID : 2024004581* IEEE
  - Developed an **emotion recognition system** leveraging **speech signals**, achieving **98%+ accuracy** on benchmark datasets.
  - Implemented **MFCC feature extraction** and **CNN-models** for robust **emotion classification**.
  - Optimized model training with **spectrogram transformations**, improving **real-time inference speed by 30%**.
  - Designed the system for **scalability**, enabling **real-time emotion tracking for conversational AI & sentiment analysis**.

### COURSEWORK

---

- Data Science & Machine Learning (Coding Ninjas)** Created 10 Major Projects. 2023
- Data Structures & Algorithms (Coding Ninjas)** Solved 500+ Questions in total. 2022