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, n8n, 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 • Live Demo

  - 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.

- **News AI Workflow Automation** *2025*

  n8n • Web Scraping • Automation

  - Built an **automated workflow** using **n8n**, integrating web scraping, summarization, and social media posting.
  - Designed a pipeline that automatically **fetches real-time news**, applies **AI-based text summarization**, and posts updates to **LinkedIn/Twitter**.
  - Prepared detailed **workflow documentation** and delivered a reusable automation framework for future integrations.

- **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.

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*