Sourabh Singh

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Summary

Performance-oriented and diligent Machine Learning Engineer graduated in July 2023 with expertise in Python programming,Generative-Ai, data modeling, and database management. Strong foundation in machine learning algorithms (supervised, unsupervised, deep learning, computer vision, Large Language Models) and statistical modeling. Experienced in Deep Learning and LangChain for developing advanced AI applications. Proven project experience in predictive modeling and natural language processing (NLP). Proficient in SQL, data wrangling, data visualization, and ML Ops. Committed to leveraging data-driven solutions to solve complex challenges.

Education

- **Maharaja Surajmal Institute of Technology** Delhi, India
  Bachelor of Technology – Electronics and Communication Engineering; GPA:9.1 *August 2019 - June 2023*

  Courses:*Data Structures, Linear Algebra, Calculus, Artificial Intelligence, Machine Learning, Databases, SQL, NLP, System design*

Skills Summary

- **Programming Languages**: Python,SQL, Go
- **Machine Learning Frameworks** : TensorFlow, Scikit-learn, NLTK
- **Data Visualization Tools** : Tableau, Matplotlib
- **AI Technologies** : Generative AI, LangChain, LLMOp
- **Soft Skills**: Leadership, Event Management, Writing, Problem Solving, Organized

Experience

- **Alphec** Remote
  Data-Science (Intern) *Dec 2021 - June 2022*
  - **AI Chatbot**: Integrated voice input and dual-output functionality (voice and text) using advanced natural language processing technology similar to platforms like Alexa and Google Assistant. The chatbot featured personalized recommendations and real-time weather updates, evolving through continuous user interaction and behaviour.
  - **AI based legal system:**: Contributed to the development of an AI-based legal system by collaborating with a multidisciplinary team of developers and legal experts, leveraging natural language processing and machine learning techniques to enhance legal research efficiency by 30%
- **Univ.AI** Remote
  Teaching Assistant and Content creator (Intern) + Full time *Sep 2022 - present*
  - **Teaching Assistant**: Provided comprehensive assistance and resolved doubts for a class of 150 students learning Python, ML, and AI, resulting in a 25 percent increase in student grades and a 90 percent satisfaction rating from the class.
  - **Content Creator:**: Streamlined the editorial calendar, enhancing content delivery efficiency by 50% and enabling the consistent publication of high-quality articles and case studies on machine learning topics to sustain audience engagement .

Freelance Projects For Clients

- **Legal AI**: Built a comprehensive legal AI system leveraging Python, Streamlit, Hugging Face, and Google Colab. Implemented legal query answering and bail prediction features using fine-tuned Llama 12B (English) and NandaB 10B (Hindi) models trained on a vast corpus of Supreme Court and High Court judgments. Applied model quantization, pruning, and advanced fine-tuning techniques to optimize performance and efficiency. . (August '24)
- **Generative Pre-trained Transformer 2**: Reproduced the GPT2 from scratch, optimized its training to be really fast trained the model overnight on google cloud Tech: Python,Pytorch,Google Colab (June '25)

* **Restaurant Web Page With Chatbot**: Developed a modern web application using Next.js, React, and TypeScript to provide a comprehensive platform for restaurant information and table booking. The application incorporates a user-friendly interface with features for viewing restaurant details, booking tables, and potentially engaging with a chatbot. The project emphasizes a clean and elegant design aesthetic, utilizing a carefully curated color palette and typography, as well as implementing responsive design principles for a seamless user experience across various devices. (June '25)
* **LLm based Sports and nutrition model**: Created a Retrieval-Augmented Generation (RAG) pipeline on Google Colab, utilizing Generative AI with a pretrained GPT-3 model for efficient retrieval and generation of sports and nutrition-related content, integrating real-time data to enhance accuracy and content relevance." : Python,Flask, Streamlit (March '24)
* **GANs,**: Implemented innovative techniques within Image-to-Image Translation projects utilizing GANs to generate realistic images from basic outlines, yielding significant improvements in rendering time by reducing output generation delays by an average of 30 seconds per task. (March '23)

Achivements

- Leetcode ,LintCode - 850+ Questions https://leetcode.com/sr16official11/
- StrataScracth 100+ SQL Pandas Questions https://platform.stratascratch.com/user/sr16official@gmail.com

Certifications

* Coursera and Sentdex certification on Natural languageprocessing(NLP)
* DataSturctures and Algorithm with python
* UDemy certification on Machine learning