Prabal Modi

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🎓 EDUCATION

B.Tech. - IIT Roorkee
Metallurgical and Materials Engineering (2017-2021)
CGPA: 8.03/10
Extra Curriculars:

- As a **Teaching Assistant**, facilitated communication between faculty and first year students, held tutorials and doubt clearing sessions.
- As an **Academic Committee Representative**, voiced undergraduate students needs and concerns, addressed grievances, and made decisions on courses and curriculum in board meetings.

Class XII - MP Board - 86.2 %

Class X - ICSE Board - 89.5%

🧠 RELAVANT SKILLS

Programming Languages
Python, Shell Scripting

Python Libraries
Transformers, Pandas, Matplotlib, Seaborn, SentenceTransformers, Spacy, NumPy, MLflow

Python Frameworks
PyTorch, FastAPI, HuggingFace, LangChain,PySpark, Tensorflow

Other Tools
Docker, Git, Vim, SQL, AWS Command Line Interface

Softwares Tools
VS Code, Postman, Jupyter Notebook, Linux shell utilities

Languages
English(SRW), Hindi(SRW)

📖 COURSES AND CERTIFICATIONS

- Applied Machine Learning by AppliedAI ⧉
- Fractal Certified Data Scientist ⧉
- Program in Data Science, Analytics and Data Engineering by Great Learning ⧉
- Mathematical Thinking in Computer Science by Coursera ⧉
- Data Structures by Coursera ⧉

💼 PROFESSIONAL EXPERIENCE

Data Scientist, Fractal Analytics ⧉
Jul 2021 – Present

- **Flyfish.ai** ⧉ (April 2023 - Present)
  - **Conduct research on the latest advances in LLMs** such as gpt-3.5-turbo, Llama2 including new architectures, training methods, and applications.
  - **Develop and implement APIs** that seamlessly integrate with other systems within our platform, improving business operations.

- **Senseforth.ai** ⧉ (April 2022 - May 2023)
  - **Call Center Analytics Module** Automated analysis of call recordings to extract the issues, summary and emotion. Some techniques involved are Abstractive Summarization, Sequence Classification, Finetuning Models, Slot Filling etc.
  - **Maintain NLP Modules** Trained and exposed different NLP modules such as questionizer, metadata extractor, summarizer, sentiment classification as microservices using FastAPI, Docker, and Nginx load balancer. This made the modules more scalable and reliable, and it also made it easier to deploy them to different environments.
  - **Productionize Deep Learning Models** Optimized the throughput of deep learning models by compressing them using quantization tools such as ONNX, OpenVINO, etc. Compared the costs and performance of optimized models on different cloud servers which resulted in atleast 30% reduction in the cost of deployment while preserving accuracy.
  - **Miscellaneous** Finetuned the translator module for indic languages, mentored new joiners to the ML team, set up Nginx reverse proxy on servers, used MLflow to track and manage the ML lifecycle.

- **Streamflux** ⧉ (September 2021 - March 2022)
  - **Designed and implemented new features** in Streamflux, a data analytics platform that leverages data ingestion, processing, modeling, and visualization technologies.
  - **Integrated Python code support** into the existing Scala framework using PySpark and **Created Python templates** for conducting thorough end-to-end testing on implemented feature.
  - **Generated interpretation charts** for various ML Technique using visualization libraries like Matplotlib and Seaborn on ingested data and **Utilized Agile development methodologies.**