PRAKRIT PATHAK

Computer Science Undergraduate

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EXPERIENCE

SDE-2
Oracle Cloud Infrastructure

June 2023 - Present Bangalore, Karnataka

- Optimized the Region Build Bootstrap process as a **full-stack developer**, slashing the build timeline by over 60% from **100+ days to 37 days**.
- Engineered optimized **Pipelines** with **Autonomous Database**, reducing region build reporting time by 97%—from **4 hours to 5 minutes.**
- Developed and implemented automated reporting solutions in collaboration with Product Managers, saving the team approximately **10 hours of manual work each week**.
- Built and deployed Daemon workers for Microschedules, enhancing the operational efficiency of critical region build war rooms that support over **250 service teams**. of critical region build war rooms, affecting 250+ service teams.
- Accelerated the onboarding of four senior developers by mentoring them on development setup and acting as the go-to expert for technical problem-solving

Machine Learning Intern
Fintech Lab @ Georgia Institute Of Technology

May 2024 - August 2024 Remote

- Engineered a **bi-level event detection** model to precisely identify regulatory events in financial texts, significantly improving event detection accuracy.
- Implemented **hierarchical attention networks** to effectively summarize lengthy financial documents, ensuring the preservation of critical details and structural context.
- Architected a **unified language model** for both comprehension and generation, providing critical insights into the application of LLMs in the financial domain and improving task efficiency.

ML Intern
Thapar Institute Of Engineering and Technology

Nov 2023 - May 2024 Remote

- Engineered an ensemble model for **loan default prediction** using the Lending Club dataset, leading to more robust and accurate risk assessments.
- Executed a comparative analysis of **leading language models** on the WikiText dataset, utilizing metrics like BERTScore and ROUGE to deliver in-depth insights into their NLP task performance.
- Applied the **TOPSIS method to rank model performance**, identifying GPT-3.5 as the superior model across all three NLP tasks, outperforming both BART and Gemma-7b.

Summer Intern
Oracle Cloud Infrastructure

May 2022 - July 2022 Bangalore, Karnataka

- Worked with the **TAS**(Tenant Automation System) team and developed a ***highly efficient transmutation algorithm*** to convert payloads stored in TAS db into raw format.
- This change was further implemented to also store **CIM payloads**.

EDUCATION

Indraprastha Institute of Information Technology Delhi (IIIT-Delhi)

B.Tech. (CSE) - 8.50 CGPA

July 2019 – 2023

PROJECTS

Sentinet : ML Loan Default Predictor
Guide: **Dr. Saket Anand**

- Led a team of 3 and spearheaded the development of a ***highly efficient machine learning models*** in order to solve the classic loan default prediction problem.
- Implemented and perfected various ML models like ***Naive Bayes, Logistic Regression, Decision Tree*** etc.
- Highest accuracy with the most optimal approval rate was achieved on Gaussian Naive Bayes Classifier(75% accuracy , 82% approval rate).

E-Sahyatri [E-Sa-hyaa-tree]
Guide: **Dr. Mukesh Mohania**

- Spearheaded a 4-person team in the creation of "e-Sahyatri," a mobile travel guide utilizing the **MapMyIndia API** to offer rich insights into India's heritage sites.
- Engineered a **real-time location tracking** feature to provide users with dynamic, context-aware information about historical landmarks as they traveled.
- Designed and implemented interactive games and quizzes to **gamify the user experience**, boosting engagement and interactive learning about India's cultural history.

PUBLICATIONS

- **P. Pathak** and P. S. Rana, "Comparative Analysis Of Pretrained Models for Text Classification, Generation and Summarization : A Detailed Analysis " International Conference on Pattern Recognition, 151-166, Springer Nature Switzerland, 2024/12/1.
- **P. Pathak**, A. Jain, M. Bansal and P. S. Rana, "SentiNet: Empowering Robust Loan Default Prediction through Ensemble Modeling," 2023 IEEE International Conference on Computer Vision and Machine Intelligence (CVMI), Gwalior, India, 2023, pp. 1-6, doi: 10.1109/CVMI59935.2023.10464518.