SAKALYA MITRA

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📍 INDIA

EXPERIENCE

NLP Intern
FutureSmart AI

📅 02/2024 - Present 📍 Remote

Python, FastAPI, LangChain, Langgraph, AWS, NLP **Certificate**

- Developed 2 custom Natural language to SQL Chatbots for international projects accommodating datasets having **1 million+ records**.
- Optimized pipeline for NL2SQL using **LangChain** and **Llama-Index** to reduce output fetching time from **15 seconds to 5 seconds** increasing performance by **33%**.
- Crafted **FastAPI** endpoints and admin functionalities for deployed NLP applications secured by Google Auth authentication impacting over a customer base of **10,000+**.

Data Science Intern
Scaler

📅 07/2022 - 04/2024 📍 Remote

Python, Machine Learning, Leadership **Certificate**

- Analyzed and improved learning modules for increasing student engagement in assignments and reduction in **Help Request by 25%**.
- Spearheaded the development of an advanced, industry-focused curriculum and project portfolio for the **Data Science Program**, resulting in a **50% increase in student engagement** and a **25% improvement in project completion rates**.
- Designed **400+ questions** and **3+ projects** covering **ML, Probability, Statistics, Calculus**, and **Data Structures** for the Advanced Data Science Course accounting for over **12% of all questions**.
- Achieved **top performers** consistently among 10+ interns, overseeing entire Beginner and Intermediate Data Science Segment.

KEY ACHIEVEMENTS

Best Research Paper Award

Won in ICAIA conference 2024 (Springer) among top 200 presented papers.
Certificate

Google HashCode 2022

Achieved **University Rank:1**, **National rank: 456** & International rank:**1674**.
Certificate

2nd Place in Business Plan Competition

Secured **2nd position** among **5000+ teams** at IIT Kharagpur Annual Tech Fest, Kshitij 2023 **Certificate**

2nd Place in Machine Learning Sprint Competition

Runner-up among 50+ teams at VIT Bhopal Annual Tech Fest 2022.
Certificate

2nd Place in WCE Hackathon

Became the runner-up among 700+ teams at national level hackathon organised by WCE College. **Certificate**

PUBLICATIONS

- A Fine-Tuned Transfer Learning Approach for Parkinson's Disease Detection on New Hand PD Dataset **Springer** **Paper Link**

- A Comparative Analysis of Transfer Learning Based Models for Parkinson's Disease Diagnosis **Springer** **Paper Link**

- "*Scale Invariant Feature Modelling with Integrated Transfer Learning for Parkinson's Disease Diagnosis*" paper accepted at the premier **15th ICCCNT Conference** conducted at **Indian Institute of Technology- Mandi,** having a selection ratio of less than **10%.** **Forthcoming, IEEE Xplore** **Certificate**

EDUCATION

Integrated M.Tech. Artificial Intelligence (CSE)
VIT Bhopal University

📅 09/2020 - Present

CGPA
9.59 / 10

- Among **Top 0.5%** Students of the Batch.

PROJECTS

AutoTabML

Automated ML Code Generation for Tabular Data
GitHub **Live Link**

- Enabled **reduction in feature engineering** and **model selection time** by **80%**.
- Implemented agents specializing in various aspects of the ML pipeline, streamlining the entire process from EDA to model recommendation and debugging, improving **development speed by 75%.**
- Deployed robust algorithms for l**arge-scale data** (100K+ rows, 1000+ features), achieving **95% accuracy of model**.
- Enabled users to run and debug code within the application without external tools, enhancing **user experience and productivity** by **50%.**
- Tech Stack: **Python, CrewAI, Streamlit, Groq TensorFlow, Scikit-Learn.**

Search-Viz

AI Search Algorithms Visualizer
GitHub **Live Link**

- An AI Search Visualizer tool using HTML and Python, facilitating the visualization of **7 different search algorithms**.
- Integrated Brython to bridge **Python and JavaScript** seamlessly and enhanced cross-platform compatibility, resulting in a **40% increase** in web application performance.
- Introduced interactive features like undirected/directed **graph construction** and **heuristic assignment**, improving user engagement and learning outcomes by **40%**.
- Tech Stack: **Python, Brython, HTML, CSS.**

SKILLS

Python	C++	SQL	MySQL	Pinecone
ChromaDB	Flask	FastAPI		TensorFlow
Scikit-Learn	LangChain		Langgraph	
Llama-Index	Streamlit		HuggingFace	
AWS	Docker	GCP	Heroku	MLFlow
DagsHub	DVC	Machine Learning		
Deep Learning	NLP	MLOPs		

FIND ME ONLINE

🌐 **LeetCode**

https://leetcode.com/u/sakalya_123/