Nilanjan Ghosh

Motivated computer science student specializing in applied machine learning, Python, and Linux, with a focus on crafting data-driven solutions.

India +917200565892 nghosh0711@gmail.com https://nilanjanghosh-digitalcv.streamlit.app/

Skills

Programming
Python

Numpy, Pandas, sklearn, Pytorch, Keras, Streamlit, Seaborn, Mathplotlib, google.generativeai, openai, tensorflow, nltk, Faiss, langchain, Plotly

Machine Learning
Artificial Intelligence

Decision Tree, Neural Networks, Bayesian Network, Markov Model, Hidden Markov Model, Clustering, Classification, Deep Learning, LLM, NLP

Linux
Programming

Linux System Administration, Shell Scripting, Samba, LVM, Git, C/C++/Java/Python coding debugging in terminal

Database
Storing Data

MongoDB, MySQL, ChromaDB

Interests

Coding for fun

Puzzle Solving

Table Tennis

Cricket

Certifications

Computing with Python
NPTEL
DEC 2023

Completed Computing with Python course issued by NPTEL under IIT Ropar in December 2023.

Achieved a top score of 88% among 30,000+ learners.

Acquired skills in data analytics, probability, hypothesis testing, regression, clustering, and classification using Python.

https://nptel.ac.in/

Data Analytics with Python
NPTEL
April 2023

Completed Data Analytics with Python course issued by NPTEL under IIT Roorkee in April 2023.

Learned how to use Python for data analysis, probability, hypothesis testing, regression, clustering, and classification.

Applied data analytics skills to real-world problems and datasets using Python tools such as Pandas, NumPy, and IPython.

https://nptel.ac.in/

Awards

JRF
University Grants Commission(UGC)
Janurary 2024

Awarded Junior Research Fellowship (JRF) by University Grants Commission (UGC) National Eligibility Test (NET) in January 2024.

Qualified for lectureship and research positions in Indian universities and colleges.

Demonstrated excellence in academic knowledge and research skills in the subject of Computer Science and Applications.

https://ugcnet.nta.nic.in/

GATE
IISC Bangalore
February 2024

Qualified GATE 2024 in CS and DA, two competitive and sought-after papers.

Proficient in core topics of data science, machine learning, AI, and general aptitude.

https://gate2024.iisc.ac.in/

Languages

English
Proficient

Bengali
Mother Tongue

Hindi
Fluent

Profiles

Nilanjan Ghosh
LinkedIN

nil0711
Github

csnil0711
X

Summary

Aspiring computer scientist with strong skills in Python, Linux, and applied machine learning. Demonstrated ability to create data-driven solutions using statistical modeling and algorithmic optimization techniques. Passionate about innovation and learning new technologies. Seeking a challenging role in a forward-thinking organization where I can contribute my expertise, collaborate on impactful projects, and push the technological boundaries.

Education

Pondicherry University
Computer Science
9.2
Masters
December 2022 - Present

Persuing MCA (Master of Computer Applications) from Pondicherry University with a specialization in ML, AI, Linux, and Python Programming. Secured a GPA of 9.2 and received the best project award for developing a chat analysis system with sentiment analyzer using Python and Google Gemini Pro. Gained hands-on experience in programming, database management, software engineering, and machine learning. Looking for a challenging role in a reputed IT company where I can apply my skills and knowledge and learn from the best in the industry.

https://www.pondiuni.edu.in/

St. Xaviers College,Kolkata
Mathematics
7.1
Bachelor of Science
August 2017 - May 2020

Graduated with a BSc in Mathematics from St. Xavier's College, Kolkata, in 2023. Achieved a GPA of 7.1 and ranked among the top 10% of the class. Completed courses in calculus, linear algebra, discrete mathematics, probability, and statistics. Participated in various mathematical competitions and won several awards. Seeking to apply my mathematical skills and knowledge in a challenging and rewarding role.

https://www.sxccal.edu/

Projects

Chat Analysis with Sentiment Analyzer
A Streamlit application that analyzes WhatsApp chat data using natural language processing techniques and provides interactive data visualizations and a chatbot interface.
Sept 2023- Jan 2024

This project is a Streamlit application that analyzes WhatsApp chat data using natural language processing techniques and provides interactive data visualizations and a chatbot interface. The main features of the application are:

Data preprocessing: The application parses timestamps, extracts messages, and organizes data into a structured format using Python libraries such as pandas, numpy, and NLTK.

Sentiment analysis and emotion detection: The application uses TextBlob and NLTK to perform sentiment analysis and emotion detection on the chat messages. It also categorizes sentiments into negative, neutral, mixed, and positive, and emotions into joy, anger, neutrality, and sadness.

Data visualization: The application offers a dynamic dashboard, enabling users to explore data visualizations, such as timelines, activity maps, and word clouds. Users can selectively analyze individual or group chat behavior, including message frequency, media sharing, and link sharing.

Sentiment and emotion trend analysis: The application facilitates sentiment and emotion trend analysis over both monthly and daily intervals. It shows how the chat mood changes over time and identifies the most positive and negative days.

Chatbot integration: The application integrates a chatbot that allows users to interact and gain insights into the representations generated by the underlying natural language models. The chatbot can answer questions about the chat data, such as who is the most active, the most positive, or the most emotional person.

The application provides valuable insights into user behavior, sentiment dynamics, and emotional nuances within WhatsApp conversations, making it a powerful tool for users seeking a comprehensive understanding of their chat data.

Streamlit, WhatsApp, Natural language processing, Data visualization, Chatbot, TextBlob, NLTK, Sentiment analysis, Emotion detection, Data preprocessing

https://miniproject-senti.streamlit.app/

File manager
A Python file manager GUI using Tkinter and ttkbootstrap, with features such as file manipulation, searching, zipping, opening, properties, and permissions.
March 2023- May 2023

This project is a Python file manager GUI that allows users to perform various file operations such as copying, moving, renaming, deleting, searching, zipping, unzipping, opening, viewing properties, and changing permissions. The project uses the Tkinter and ttkbootstrap libraries to create a user-friendly and responsive interface. The project demonstrates the use of object-oriented programming, file handling, subprocesses, and error handling in Python.

Python, Tkinter, ttkbootstrap, File manager, Object-oriented programming, File handling, Subprocesses, Error handling

https://github.com/nil0711/CODE/blob/main/tkinter_test/test5.py

LLM Project (currently in development)
A large language model for Indic languages with linguistic and cultural knowledge.
February 2024 - Present

This project aims to create a large language model (llm) for Indic languages, which are spoken by more than 1.3 billion people in India and other countries. The project will use a transformer-based architecture and large-scale datasets of Indic texts to train the llm to understand and generate text in various Indic languages. The project will also incorporate linguistic and cultural knowledge of Indic languages to improve the performance and accuracy of the llm. The project will evaluate the llm on various natural language processing (NLP) tasks and compare it with existing models. The project will also explore the potential applications and benefits of the llm for various domains and users.

large language model (llm), Indic languages, linguistic and cultural knowledge, transformer-based architecture, natural language processing (NLP), text summarization, machine translation, question answering, sentiment analysis