Abbinav Sankar Kailasam

Mobile: +91 9361372623 | Email: abbinavsankar2003@ gmail.com |
Linkedin: linkedin.com/in/abbinav-sankar-kailasam-a92872222/ | Github: github.com/AbbinavSK

Education

Sai University, Chennai May 2025 (expected)
Bachelor of Technology Computing and Data Science *CGPA: 9.19/10*

Coursework

Computing and Data Science Coursework: Reinforcement Learning, Natural Language Processing, Machine Learning, Deep Learning, Statistics for Data Science, Financial Modelling in Python, Time Series Analysis

Economics Coursework: Principles and Foundations of Economics, Microeconomics, Fundamentals of Finance.

Skills

Programming Languages: Python, R, Julia, C, SQL
Developer Tools: Git/Github, VS Code, Jupyter Notebook
Libraries: Scikit-Learn, Tensorflow, Keras, Pytorch, Statsmodels, Numpy, Pandas, Llama Index, Requests, Bs4
Applications: Microsoft office, Google Cloud Platform, Canva, Latex
Languages: English, Tamil, Hindi

Internships

Jawaharlal Nehru University, New Delhi | *Research Assistant* (July 2024 - August 2024)

- Worked in "Experimental-Theoretical-Computational" (ETC) Laboratory with Prof. Anirban Chakraborty to statistically analyze and predict crop price/yield volatility at the district level using environment variables.
- Applied various modeling techniques like time series analysis (ARIMA), machine learning (Xgboost), deep learning (RNN, LSTM) approaches to enhance the accuracy and reliability of the predictions.
- Tools: Excel, Python - Tensorflow, Scikit-learn, Statsmodels

Titan Company Limited, Bengaluru | *Data Analyst Intern* (May 2023 - July 2023)

- Worked in watches "Analytics and Insight" division to analyze and predict the demand of smartwatches in the retail channel.
- Developed a time series model (SARIMAX, LSTM) that forecasts demand of Titan and Fastrack smartwatches in the retail channel for the next 6 months.
- Achieved a mean absolute percentage error of 3% with the SARIMAX model.
- Tools: Excel, Amazon Redshift, Python - Scikit-learn, Statsmodel

Projects

Financial RAG Application | *Python - Llama Index, Ollama, Llama 2* (Sep 2024 – Present)

- Building a Gen AI RAG application to provide inferences from SEC 10K yearly reports of publicly listed companies in the US.
- Using well crafted prompts to extract fundamental inferences and metrics from the reports to help investors in their decision making. [Link]

Mutual Fund Portfolio Analysis | *Excel, Python* (Feb 2024 – May 2024)

- Built a diversified multi class fund containing equity, long-term bonds and gold etf to cater to customers with a moderate risk appetite in India.
- Analyzed the 5 yr returns of several stocks and compared the portfolio returns with benchmarks like Nifty50 and Sensex using PE, PB, PEG values. [Link]

Ornamental Flower Classification | *Python - Tensorflow, Keras* (Dec 2023 – Jan 2024)

- Built a CNN model using Transfer Learning and Fine-tuning of 3 popular models - Inception ResNet V2, EfficientResNet V2 B0 and ConvNeXtTiny to classify ornamental flower images into 5 types. Finally the best performing fine-tuned models of each are ensembled with majority-rule voting. [Link]

Predictive Modeling | *R - Regression, LDA, Feature Engineering* (Oct 2023 – Dec 2023)

- Built regression and LDA models to classify wine samples into different grades of quality (1 - 10). Maximizing inferences obtained from the dataset using statistical analyses. [Link]

Classical Machine Learning | *Python - Scikit-learn, Statsmodels* (Apr 2023 – June 2023)

- Regression: Predicting the Spatio-temporal water quality indicated by median pH value. Achieved a root mean squared error of 0.0293 using Multivariate linear regression. [Link]
- Classification: Predicted whether a Mushroom is edible or poisonous. Achieved an accuracy and F1 score of 1.0 using Gradient Boost classifier. [Link]

Relevant Certificates

Large Language Models, Shaastra 2024 - IIT Madras Workshop [Link]
GPT from Scratch, Shaastra 2024 - IIT Madras Workshop [Link]

Extracurriculars

Academic Secretary of CDS School, Sai University (Oct 2022 - Oct 2023)
Election Commission Member, Sai University (Nov 2023 - Nov 2024)