Brinda Dasgupta

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Education

- **University of Illinois Urbana Champaign** — IL, USA
  MS - Predictive Analytics and Risk Management — *Aug 2022 - Dec 2023*
  Courses: Stochastic Process in Finance and Insurance, Advanced Predictive Analytics, Applied Bayesian Analysis, Basics of Statistical Learning, Introduction to Financial Markets.
- **St. Joseph's College** — Bangalore, India
  MSc - Big Data Analytics — *Aug 2020 - April 2022*
- **Symbiosis Institute of Computer Studies and Research** — Pune, India
  Bachelors - Computer Applications — *June 2017 - April 2020*

Experience

- **New York Life Insurance Company** — Hybrid
  Data Science Intern — *June 2023 - Aug 2023*
  - **Operational flow**: Obtain insights into various stages of model development and learn about various stakeholders and challenges involved. .
  - **Touchpoints with Model lifecycle** : Reviewing the purpose and working of NYL's cloud-based DS platforms
  - **Model code optimization**: Understanding a specific NYL model (currently deployed on Domino) memory issue-create a case study if GenAI can be used for auto detection of the memory leak in the model code
  - **Real-time API-based model execution**: Use GenAI to create template of Mule Wrapper Code
  - **AI-Triggered Model**: Created an employee management tool that leveraged AI/ML to manage workers in order to ensure minimum wastage of resources.
- **Illinois Risk Lab** — On-site
  Graduate Student Researcher — *Aug 2022 - Oct 2023*
  - **Developed spatial and temporal models**: Identification of the policyholders' driving behavior in certain CBG (Census Block Group) or city/county levels and providing guidance for auto insurance geo-risk.Investigated the association between accident and foot traffic based on the 2018-2019 vehicle accident report from Indiana State.
- **KPMG Digital LightHouse** — Remote
  Intern — *Jan 2022 - May 2023*
  - **Competitive Analysis** : Analysed the factors behind the falling market position of Client Company. Utilized platforms such as PowerBI and Excel to develop analytical and technical strategies.

Publications

- [**Brinda Dasgupta, Aadhya Sharma**]. **"Impact of Lockdown on Education in India."** : International Journal of Education, Modern Management, Applied Science Social Science (IJEMMASSS) ISSN : 2581-9925, Impact Factor: 6.340, Volume 03, No. 02(IV), April - June, 2021, pp.26-34]
- **Conference: "Prediction of Covid-19 Cases in Kerala based on meteorological parameters and AIR (Air Quality Index) using Bi-LSTM Technique."** : (Springer, Taylor Francis Online, International Conference on Metaheuristics in Software Engineering and its applications (METASOFT 2022))

Projects

- **Face Mask Detection**: Developed a 9 layers 2D CNN framework using Kaggle dataset containing 1314 images. Achieved accuracy of 97.42 % on test data. Tech: CNN, Jupyter Notebook, Python, Numpy, OpenCV, Keras
- **Resume Analysis Using NLP**: Developed a Resume Analysis Model which automates the process of manual resume screening. Devised a model that evaluates different resumes by extracting specific keywords. Concluded Model Output using data visualizations for easy resume screening. Tech: Jupyter Notebook, Spacy, PyPDF, Python, Matplotlib, Pandas, Streamlit, Word2VecModel
- **Automated ARIMA Forecasting for Treasury Bill Rates**: Developed an automated R-package project utilizing ARIMA time series forecasting model to analyze and forecast Treasury bill rates based on historical data. Implemented data transformations, exploratory data analysis and mathematical model modifications to account for the shift in trend due to unprecedented events such as Covid-19 and recession, providing accurate predictions for 2023. Tech: R, ARIMA, rvest, RShiny
- **High Performance Fraud Detection using Machine Learning**: Developed a high-performance machine learning project utilizing the Vesta Corporation dataset. Utilized Logistics Regression, KNN, Decision Tree, Random Forest and XGBoost models to achieve accurate classification of fraudulent transactions on a dataset of 1 million records and 434 input features. Tech: Python, Numpy, Scikit-learn, Matplotlib, Seaborn

Skills Summary

- **Languages**: R , Python, C, C++, SQL, Java
- **Frameworks**: Pandas, NumPy, PyTorch, Keras, Tensorflow, OpenCV, Matplotlib, Scikit-learn
- **Database/Tools**: GIT, Hive, Hadoop, SQL, MySQL, PowerBI