Pritam Dey | Data Science

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Website: **https://pritam-dey3.github.io/resume**

Experience

- Data Scientist at Dr. Reddy's Laboratory (Aug 2021 – May 2023)
    - **Google Of Investigations**: Building a search engine from scratch that relates to various incident investigations in the company.
    - **Stability Failure Prediction**: Predicting whether a product will fail in a particular test based on few past timepoints (3-5) and historical data.
    - **Cost of Poor Quality**: Detecting the reasons behind poor quality in the manufactured batches of a drug.
    - **Smart Scheduler**: Creating an intelligent scheduler that schedules the visits of a medical representative for entire month using genetic algorithm
    - **Brand Gini**: Suggest relevant products/brands based on their past prescriptions brand popularity etc.
    - **RCA**: Root Cause Analysis of poor performance of Head Quarters
    - **Visual-Aid Analysis:** Analyse Visual Aids shown to the doctors based on their colour balance, abundance of text / images, location of objects to measure how much visually appealing the slides are.

Projects

- **Automatic team detection for any Bundesliga football match** (March - April 2022)
  Key points: Use YoloV7 for human, ball detection. Apply a sequence of classical computer vision + ML methods to detect specific jersey colors. I was able to overcome some critical challenges such as video feeds containing different lighting conditions (day / night), different colors of grass and jerseys of referees.
- **Predicting survival chances of passengers in Titanic** (March 2020) Applying various machine learning tools like decision tree, random forests, extreme boosted trees, support vector machine, KNN and finally creating an ensemble model with all the classifiers
- **Inspecting insurance availability in Chicago** (October – November 2019) Validation of basic parametric assumptions and transforming data to assure normality. Detection and Rejection of outliers. Basic linear regression and inference
- **Analysis of Egyptian skull data:** (March – May 2020) Applying linear discriminant analysis to classify skull of different age, Factor analysis
- **E2E NLG challenge** (Jan – May 2021) Building a transformer based model from scratch to convert structured data about restaurants into text.

Technical Skills

- Statistical Modelling and Inference
- Robust regression techniques
- Machine Learning and AutoML.
- Deep learning (NLP / NLG, Computer Vision)
- Programming languages: Python, R, MATLAB, C, C++
- Libraries/Frameworks: Pytorch, Tensorflow
- Reinforcement Learning
- Visualization: Plotly, Matplotlib etc.
- Dashboarding: Streamlit, Gradio
- Database Management: SQL

Education and qualifications

- **Indian Statistical Institute –** (2019 - 2021)
  - **Master of Statistics**
    Grade: 73%
- **Ramakrishna Mission Residential College, Narendrapur –** (2016 - 2019)
  - **BSc (Hons.) Statistics**
    CGPA: 8.88
- **Ramakrishna Mission Vidyalaya, Narendrapur –** (2014 - 2016)
    Grade: 88.8% in WBCHSE class XII-Science

Extra-Curricular Activities

- **Music –** Playing guitar, Tabla, Mouth organ, Composing music
- **Creative Involvement –** Co-director in Inter Bhavana Drama Competition in Ramakrishna Mission Residential College
- **Sports –** Badminton, Table tennis, Chess