MOTILAL MEHER

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EDUCATION

M.Tech in Industrial and Management Engineering (CGPA 8.67, Rank 4/25) **IIT Kanpur (2018-20)**

- **Mr. & Mrs. S.N. Mittal Gold Medal** for **best all round performance** in academics and extra-curricular, IIT Kanpur.
- **Student senate Y18** (2019-20) Vision: Better incorporation of the voice of the PG student in the Gymkhana.
- **Awarded A*** in Probability and Statistics (IME 602) for outstanding performance.

B.Tech in Mechanical Engineering (CGPA 8.45, Rank 2/80) **PMEC, Berhampur (2013-17)**

- Awarded by Head of Department for **best all rounding performance**.
- Secured **99.01** percentile in GATE-2018(Mechanical) among 200000 students.

Class XII (CHSE, Odisha): 82.5% | Class X (BSE, Odisha): 87.16%

WORK EXPERIENCE

ANALYST, STRATEGY ANALYTICS & COGNITIVE CONSULTING **Deloitte India (Sept 2020 - Present)**

Customer inactivity prediction for prepaid users for one of the leading telecom firm | Python, ML Ops, GCP, Kubeflow, Gita lab

Data Science:

- Developed a predictive model to identify prepaid subscribers at risk of becoming inactive to minimize customer churn.
- Analyzed the subscribers to identify the potential **segment** and define **observation and performance windows**.
- Created different features using variables related to revenue, first and last usage, voice and data usage.
- Developed classification models like **logistic regression, random forest and xgboost** on the set of the features selected by their **information values**.
- Evaluate the model performance using the **Gain and Lift chart** and set a **threshold** to define which users are worth targeting using out of time data.

ML Ops:

- Using ML Ops practice and tools to deploy, manage, and monitor ML models in production.
- **Containerized** the whole ml workflow (components of **training and batch inference pipeline**) with **docker**.
- Created robust **CI/CD pipeline** using **Gitalb** to rapidly explore new ideas around feature engineering, model architecture and pipeline by automatically containerizing, testing and deploying the pipeline components into the **google container registry**.
- Using **git** to versioning the source code and google cloud store to versioning data, features, model object and different artifacts.
- Using **GCP AI platform pipeline/Kubeflow orchestrate** ML pipeline and automatically deploy the model.
- Using Kubeflow Pipelines standalone on a local Kubernetes cluster schedule the batch inference pipeline on-premise.
- Automatically **monitor the model performance** by comparing the predicted value with future ground truth and detecting **data drift** and presenting the key metrices on the dashboard.

Commodity price forecasting for one of the India's leading beverage alcohol firm | Python, GCP

- Forecasted the price index of broken rice that will help the firm to determine the optimum procurement and inventory schedule.
- Identified different **exogenous factors that can impact the price related to** macroeconomic factors, trade, price, weather etc.
- Forecast the independent variables using models like ARIMAX, UCM, Holt Winters method, Moving Average Method.
- Build the multivariate time series model like **ARIMAX, UCM** to forecast price and evaluate model on **out of time data** using **MAPE.**
- Automated the data ingestion ETL pipeline using **GCP dataflow.**
- Using **cloud function, cloud scheduler** and GCP **compute engine,** automate the forecasting job.
- Used **GCP Bigquery tables** for data warehouse and **google data studio** for dashboard creation.

INTERNSHIP

BUSINESS ANALYST **Mphasis Next-lab (May 2019 – July 2019)**

Process Flow analyser (Convert Image of Process map to industry standard XML code using Image processing techniques) | Python

- Identify the Cross-functionalities (Leverage **morphological operations** with the creation of **custom kernels**).
- Localize and classify the symbols (Leverage **contour properties** and **contour Hierarchy**).
- Localize the **arrows, identify the extreme end** and classify them (Leverage contour properties), **identify sequences of symbols** (**adjacency matrix** to represent directed sequence among Nodes).
- Visualization of a directed graph from adjacency matrix using NetworkX python package.
- Create and parse an BPMN 2.0 XML documents using xml.etree.cElementTree python packages.

COURSES AND TECHNICAL SKILLS

- Courses: Statistical modelling, Machine Learning, Probability and statistics, Statistical Inference, Operation research, Stochastics calculus, Econometrics, Time series analysis.
- Programming language: Python, R, SQL, Java
- Cloud and ML Ops tools/practices: GCP (AI Platform, Kubeflow pipeline, Dataflow, Bigquery, Cloud build, Cloud function), AWS(Sagemaker, Codecommit, Codebuild, Codepipeline, ECR, S3), Git Lab CI/CD pipeline, Docker, Containerization, Version control, Kubeflow pipeline

EXTRACURRICULAR ACHIEVEMENTS

- Finished First in High jump at school level (2004, 05, 06, 07) and in zonal level (05, 06, 07), JOSH-19(Intra IITK).
- IITK Hall8 Cricket: Enthusia 2k18 winner, Josh 2018 runner up and Josh 2019 winner.
- Completed Pin Parvati trek (Altitude 17,500 Ft), Sandakphu trek (Altitude 12,000 Ft).
- Finalist in Flipkart Grid Machine Learning quiz, IITK.
- Finalist in Analytics Case Study Competition & Symposium event during Prabandhan'18 IIT KANPUR.