

Debapratim Ghosh

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EDUCATION

Master of Science in Statistics

UNIVERSITY OF ILLINOIS, URBANA-CHAMPAIGN

Teacher Assistant (TA): Intro to Databases;

Coursework: Machine Learning, Experimental Design, Mathematical Statistics

Champaign, IL | Aug 2021-Present

Advanced Program in Data Sciences

IIM CALCUTTA

Remote | Sep 2019-Oct 2020

Bachelor of Electrical Engineering

JADAVPUR UNIVERSITY

Kolkata, India | Aug 2011-May 2015

WORK EXPERIENCE

AMAZON | DATA SCIENTIST

Bangalore, India | Oct 2018 – Mar 2021

- Investigated robotic attacks on identified list of IP Addresses and Websites. Blocked suspicious IPs and websites to bring down overall robotic traffic by **2.5%**.
- Calibrated thresholds for activity based algorithms that invalidated robotic traffic. Reduced False Positive Rates of algorithms from **5%** to **0.5%** for the same invalidation rate.
- Forecasted volume of Ads flowing in for manual moderation for capacity planning and workforce management. Used Prophet Modelling package in python to automate weekly forecasts of ad volume. Recommended **10%** increase in headcount of ad moderators based on MoM projections of ad volume.
- Performed A/B testing on Ad Moderation algorithms prior to launch to gauge their efficacy.
- Using statistical approximation, estimated annual revenue impact of USD **320k** by reducing the Turn Around Time (TAT) for ad moderation to **3 hours**. Reduced TAT selected as goal for next fiscal year.

MU SIGMA BUSINESS SOLUTIONS | DECISION SCIENTIST

Bangalore, India | Sep 2015 – Oct 2018

- Retail Client** – Worked with the sourcing and procurement team to evaluate cost analytics KPIs during supplier negotiation. Built an Excel VBA based tool to automate YoY comparison of KPIs across any time frame. Used regression techniques to estimate the cost savings opportunity of USD 1.4 million through supplier disintermediation lever (moving from intermediary to direct import supplier).
- Tech Client** – Created an analytical framework to identify customers moving from one repair center to another (Channel Shopping).

ACADEMIC PROJECTS

CUSTOMER CHURN PREDICTION | CAPSTONE PROJECT AT IIM CALCUTTA

Remote | Sep 2020 – Oct 2020

- Predicted customer churn for a telecom giant using Kaggle dataset as part of capstone project. Explored multiple classification techniques like logistic regression, random forest, neural networks before zeroing in on Light GBM which had the best prediction accuracy (**63%**). Utilised SHAP to interpret the Light GBM model (Both Local and Global)

SKILLS

Tools : AWS Quicksight, Tableau, Alteryx, SSIS

Techniques : Regression, Classification, Hypothesis Testing, Clustering, Data Visualization, Deep Learning, NLP

Programming Languages : SQL, R, Python(NumPy, SpaCy, NLTK, Scikit-learn, TensorFlow, Keras), Scala, PySpark, Excel VBA

Databases : AWS Redshift, AWS Athena, MS SQL Server, MS Parallel Data Warehouse, Teradata, MySQL