

SUMMARY

Data science professional with 4 years of experience in banking analytics & predictive modelling with a strong foundation in machine learning, deep learning, and NLP. Experienced in building transformer-based models & credit risk models on large-scale financial data.

Technical Skills: Python, SQL, PySpark, PyTorch, TensorFlow, Scikit-learn, XGBoost, Transformers, NLP, LLMs, SAS, Git

EDUCATION

Indian Institute of Technology (IIT), Kharagpur: B.Tech in Instrumentation Engineering

2017 - 2021

CORPORATE EXPERIENCES

IDFC First Bank *Data Scientist, Mumbai, India*

Sep 2024 - Present

Application Scorecard:

- Built a machine learning model leveraging Account Aggregator transaction data to predict customer default risk at the time of loan application for “New to Bank”(NTB) and “Existing to Bank”(ETB) customers in the Consumer Durable(CD) and Two Wheeler(TW) portfolios.
- Engineered aggregate features, transaction level features and utilized transformer-based embeddings to capture sequential financial behavior.
- Developed ensemble XGBoost model with transformer embeddings, achieving significant gains in AUC/Gini over traditional scorecards.

Trust Score:

- Developed three orthogonal component models: Banking Activity Trust, Contactability Trust, and Identity Trust to capture behavioral and intent-to-pay signals overlooked by conventional credit risk models.
- Integrated component outputs into a composite Trust Score to evaluate customer trustworthiness across liabilities, assets, and credit cards; implemented in collection strategy, cross-sell biometric waiver, and charge waiver processes bank-wide.

Standard Chartered Bank *Manager, IFRS9, Bangalore, India*

Jun 2023 - Aug 2024

- Created an account level loss forecasting framework to predict losses for the next 18 months across various portfolios.
- Applied the methodology to the bank's China ANT Finance portfolio and Taiwan Personal Loans portfolio to accurately predict the month on month charge-off and recovery amounts.
- Contributed in Stress Test and UAT of the PD, EAD & LGD models of Malaysia BILGIL and ANT Finance portfolios.

ICICI Bank *Manager 1, Hyderabad, India*

Jul 2021 - May 2023

- Analyzed FASTag transaction data and usage patterns to segment customer base; supported migration of 6.5M users to new SOR(System of Record) platform in compliance with RBI directives.

RESEARCH PROJECTS & INTERSHIPS

Drivers of helpfulness of online hotel reviews *Prof. Dr. Swagato Chatterjee VGSOM IIT Kgp*

Sep 2018 - Dec 2018

- Conducted sentiment and emotion mining on online hotel reviews using advanced text-mining, econometric, and machine learning techniques to identify drivers of review helpfulness, work later published in the International Journal of Hospitality Management.

Fire hazards caused by Electric Short Circuit(BTP) *Prof. Aurobindo Routray EE Dept. IIT Kgp*

Sep 2020 - Dec 2020

- Collected twitter natural language data and news articles to analyze the nature of fire hazards in India(electrical/non electrical) using Web Sentiment Analysis and found that 15.6% of all fire accidents are electrical in nature.

WebEngage *Marketing Analyst Intern, Mumbai, India*

Apr 2020 - Jun 2020

- Analysed key eligibility criteria(features) of competitor startup programmes in Marketing Automation & designed a logistic regression model to score startups to be onboarded for WebEngage's Startup Programme.

RELEVANT COURSEWORK

- CS229: Machine Learning - Stanford Online
- CS336: Language Modeling from Scratch
- Base & Advanced SAS Training – SAS Institute
- Certificate Program in Investment Banking - Altuni

ACHIEVEMENTS

- Secured **99.5+ percentile** in JEE Advanced and Mains 2017, rank of **169** in WBJEE 2017, **3rd** rank in Presidency University Entrance Test, 2017(Economics) and **99+ percentile** in CAT 2022.
- Founded multiple D2C consumer tech apps & platforms (Suupam app, Frustruppa.com, PlaceBuddy app)