# Chirag A. Pallan

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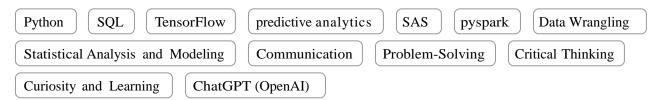
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## Summary

Bengaluru, India

Results-oriented Machine Learning Engineer and Data Scientist with a proven track record of developing and deploying high-impact financial analytics solutions. Expertise in propensity modeling, deposit pricing optimization, and predictive modeling, including a personal interest in stock price forecasting leveraging deep learning (RNN/LSTM), behavioral segmentation, and advanced statistical techniques. I build scalable, data-driven models that drive significant business outcomes. Adept at automating data pipelines and risk profiling frameworks, I have delivered **measurable improvements in campaign efficiency (e.g., a 10% increase in net interest margins)** and operational effectiveness. Collaborate effectively with cross-functional teams (marketing, finance, governance) to translate data insights into innovative, revenue-generating strategies.

## **Skills**



## **Experience**

Standard Chartered - Modeling and Analytics (SCMAC)

Machine Learning Engineer | Data Scientist

Sep 2022 - Present

Bangalore, Karnataka

## 1. Propensity Modeling & Strategy Development

- Led development of cross-sell, upsell, and retention propensity models for retail banking products (CASA, CC, etc...), improving targeting precision.
- Presented models performance insights (AUC, decile lift, PSI, GSI, feature importance, decile-wise rank ordering and business KPIs) to senior leadership, ensuring model adoption in multiple global markets.

## 2. Deposit Pricing Optimization

- Partnered with Product teams to design client-centric pricing models, balancing regulatory constraints and profitability.
- Developed propensity model based solution to optimize term deposit pricing, leading to increase in ~10% Net Interest Margin (NIM) in various markets.
- Built a Python/Streamlit-based optimization engine integrating multiple model (**ensemble**) scores for precise client targeting based on the strategy.

#### 4. Innovation & Thought Leadership

- Delivered internal presentations on **LSTM architectures**, advocating for the adoption of deep learning in financial modeling.
- Championed the reuse of models across products (e.g, adapting AUM drop models for eSaver campaigns), Reducing redundant work by 80%

#### 5. Stock Price Forecasting System (personal project RNN/LSTM)

- Developed an end-to-end deep learning pipeline for high-frequency 60-minute stock price prediction (**5-minute granularity**).
- Automated data ingestion pipeline using yFinance API, streamlined/automated model retraining with GitHub Actions, and built real-time dashboards with Streamlit. Achieved RMSE less than 1%, optimizing trading insights and investment strategies.

#### IIT Madras (IC&SR) – Startup Data Scientist

Feb 2022 - Aug 2022 Chennai, Tamil Nadu

• Built ML powered road condition monitoring/anomaly detection algorithm integrated with GIS mapping. Low cost IoT devices are used in data collection to reduce the total cost by ~30%.

- Engineered ML models for driver behavior classification, enhancing risk profiling.
- Developed predictive maintenance models using vibration analytics, reducing IoT resource utilization by 20%.

#### The Schram Academy & Self-employed

**Mathematics Faculty (IIT JEE)** 

Jun 2019 - Feb 2022

Chennai, Tamil Nadu

- Trained IIT JEE aspirants with customized curriculum for 50+ students annually, increasing mock test Performance by 20%.
- Leveraged analytics to monitor student performance, identify learning gaps, and adapt lesson plans, resulting in improved student outcomes and engagement.
- Developed adaptive lesson plans for calculus/algebra/geometry etc.., reducing reliance on third-party resources.

#### **&** Education

#### **IIIT Bangalore**

## **Executive Post Graduate Programme in Data Science**

Coursework: Machine Learning, Deep Learning, Time Series Analysis, Python & SQL for Data Science

#### **IIT Madras**

# M.S. by Research | CGPA: 8.6

Thesis: Computer-Based Simulation Model for Fatigue Damage Assessment of Marine Risers Research Focus: Computational modeling, predictive failure analysis.

## The Aeronautical Society of India | first class

#### **B.Tech in Aeronautical Engineering**

Final Year Project: Analysis of supersonic flow over a double-diamond wedge to study shock formation at different angles of attack.