# **ABHINAV THORAT**

#### Machine Learning Engineer, TCS Research

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#### **SUMMARY**

Passionate machine learning professional and data-driven analyst with 2.5+ years of experience with the ability to apply ML/DL techniques and leverage algorithms to solve real-world business problems. Established ability in deploying effective predictive models across different industries to accurately forecast consumer behavior and deliver proven results.

## **EXPERIENCE**

# Deep Learning Engineer

**Investment Intelligence - TCS** 

- April 2021 Present
- Development of Deep Learning Models for Platform which is a comprehensive suite for solutions to real world Business problem revolving around dynamic personalization using ML/DL.
- Focused on Development & Optimization of Deep Learning model for Platform, which can be leveraged by the customer to improve ROI.
- Delivering State of the art Deep Learning models for generating insights and decision making.
- Generate analytical charts & visualizations for Integration with Platform to simplify Decision Making for customer based on Model Insights.
- Writing Scripts for end-to-end integration of Models in the platform.
- Simulation of Datasets with real world parameters to experiment and analyze results of DL Models.
- Collaboration with Researchers to develop and brainstorm algorithms for improving models.
- Developed Sales Upliftment model for Customer segmentation based on principle of causal inference to categorize customers for Ad/Offer Exposure to improve ROI.
- Developed Multi-touch Attribution Model with Attention Modelling algorithm for Understanding impacts of Campaigns and Channels in revenue generation.
- Developed Mix Marketing Model based on Bayesian Inference approach for improving revenue by distribution of total budget between campaigns.
- Tools: Tensorflow,Pytorch,PyMC3,PyCharm,Gitlab

#### Machine Learning Engineer Liquid Intelligent Technologies - TCS

- Nov 2019 Apr 2021
- Development of Business use cases based on ML/DL approach to be integrated with the platform.
- Developed Time series Forecasting Model with RNN-LSTM approach to be integrated with application for dynamic billing.
- Proposing ML model ideas to Business Unit for leveraging user's data to improvise revenue.
- POC of Recommendation Engine that can be integrated with application to suggests new services/plans to customers with collaborative filtering approach.
- Articulation of Business use cases based on thorough EDA on user's data with visualization and charts.

### **TECHNICAL SKILLS**

Machine Learning Deep Learning

Neural Networks Natural Language Processing

CNN Causal Inference Data Analytics

Data Visualization Predictive Analysis

Statistical Modelling Decision Analytics

Classification Modeling Regression Modeling

## **LANGUAGES**

Python R C/C++ Java



## **LIBRARIES & TOOLS**

Scikit-Learn Tensorflow PyTorch Numpy Pandas Matplotlib Seaborn Plotly Statsmodels Jupyter Notebook SpyderIDE Visual Studio Code Anaconda3 JupyterLab **IBM Watson** Atom

## **EDUCATION**

Diploma in Data Science Indian Institute of Technology, Madras Passed Qualifier Exam Course in Progress

Apr 2022 - Present

Bachelor of Engineering. in Electronics & Communications Dr. D. Y. Patil Institute Of Technology, Pune University, CGPA: 7.1

**i** June 2014 - May 2018

Higher Secondary School in Computer Science RLT College Of Science, Akola, CGPA: 8.2

**i** June 2012 - June 2014

#### **PROJECTS**

- Sales Uplift Modeling for Customer Segmentation: goal to categorize customers in 4 Categories based on factual treatment effect and counterfactual treatment effect, with causal inference in Tensorflow.
- Multi-Touch Attribution Model: Understanding attribution(weights) for campaign in Temporal data for budget allocation and improvising revenue, along with baseline models Last touch, first touch, equal attribution and Time decay.
- Mix Marketing Model: Based on delayed adstock and diminishing return function, optimization of budget between list of campaign to increase revenue
- BERT Based Customer Sentiment Analysis: Using pre-train BERT model for sentiment analysis on Customer review, to generate a score for satisfaction.
- Time Series Analysis:Based on user's call time data over the last year generation of forecast for next month usage for dynamic billing.

### **COURSES & CERTIFICATIONS**

- Fine Tune BERT for Text Classification with TensorFlow. (Hands-on project.)
- Deep Learning Specialization By Andrew Ng (5-Course Specialization, Deeplearning.ai)
- Stanford University Machine Learning Certification By Andrew Ng.
- Data Science Professional Certification By IBM (10-Course Specialization)
- Machine Learning A-Z Hands-on in Python & R in Data Science.
- Complete TensorFlow 2 and Keras Deep Learning Bootcamp.
- Python for Time Series Data Analysis.

#### **ACHIEVEMENTS**

- Founded 'Astromate' Instagram community, 80K Followers, content based on Astronomy, Astrophysics.
- Collaborated with Adobe on "Win with Platform - Best Innovative Idea" for Deep Learning on Adobe Experience Platform.
- Cleared TCS Digital 2021.
- Best Team Award TCS 2020
- First Prize in ICICI StockMind Competition.

### **INTERESTS & HOBBIES**

- Writing Blogs on Astronomy, Astrophysics.
- · Reading Books on Various Topics.
- Playing Electric Guitar.
- Playing Chess.
- Solving Rubik's Cube, Mirror Cube.