Mohit Mayank

Data Scientist – Tata Consultancy Services

4 years experience in developing Data science, Machine Learning solutions and algorithms using Python and R language. Three years in a row assessed with top 'A' performance band. Winner of TCS SUPERCoder - a TCS wide competitive coding competition. Technologist and blogger with the several AI/ML/Programming articles over at Medium and my website ☺

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WORK EXPERIENCE

Data Scientist
Tata Research Development and Design Centre, TCS
2016-Present   Pune, India
*Project: **Digitate** – Build AL and ML solutions to automate or eliminate IT and Batch alerts.*

Data Science and Machine Learning solutions

- Marathon prediction; *profile NY marathon runner's normal behavior, create real-time model to predict runner's behavior in next race.*
- Parcel sorting optimization; *profile Scandinavian parcel company's operation, suggest improvements to minimize human effort & maximize profit*
- Question/Answer chatbot; *create domain knowledge graph, train question/answer chatbot to answer explicit/implicit questions*
- Entity extraction; *identify entities from structured/unstructured text data using statistical and contextual analysis*
- System expert analysis; *profile a system expert's work behavior, identify areas of best/worst performance, suggest the best expert for a task*
- Resolution notes mining; *profile notes of alert resolution by system experts, find patterns of similar behavior, create rule book to automate task in future*
- Relevant nodes discovery; *minimize number of jobs in batch environment without substantial adverse effect on batch prediction accuracy*
- Recommendation System; *design and implement system to suggest most promising products, maximize the future clicks and increase the profit of virtual store*

Algorithms

- Reinforcement Learning; *Deep Q-learning, multi-armed bandit, AC, A2C*
- Computer Vision; *Convolution NN, Object detection, YOLO, contours, morphology*
- Natural Language Processing; *word2vec, knowledge graph, glove, RNN, LSTM*
- Time-series; *forecasting, change-point, anomaly, trend, periodicity, regression*
- Optimization; *genetic algorithm, linear programming, gradient decent, annealing*
- Classification/Clustering; *decision trees, random forests, LightGBM, XGBoost, k-means, hierarchical clustering, DBSCAN, EMGMM*

Customer Engagements

- Procter & Gamble; *analyze system alert data, determine the most affected areas and systems, recommendations to minimize future alerts by elimination or automation*
- Credit Suisse; *analyze bank's batch jobs, determine the cause of high SLA violation, recommendations to minimize SLA breach and making batch predictable*

Android/Web developer Intern
LittleBox
2015   Bangalore, India

Task
Develop an android application to provide real-time chat interactions and analytical services for educational institutes.

Research Intern
Centre for Development in Advanced Computing
2015   Pune, India

Task
Design and develop a speech recognition engine in Indian languages and deploy it on low-power hardware as a low-cost solution for the rural population.

EDUCATION

Bachelor of Engineering (B.E.), Electronics and Telecommunication

Savitribai Phule Pune University (formally Pune University)
2012-2016   Pune, India

COURSES

- Andrew Ng's Machine Learning *(Coursera)*
- Intro to Artificial Intelligence *(Udacity)*
- Deep Learning: Advanced Computer Vision *(Udemy)*
- Deep Reinforcement Learning *(UC Berkeley)*
- Statistical Learning *(Stanford Online)*
- Probabilistic Graphical Models *(Stanford Online)*

ACHIEVEMENTS

Rank 1 – TCS SUPERCoder 2019
TCS wide competitive coding competition

Winner – Digitate Ideathon 2019
Topic: Log analyzer – Detect events, find anomalies and perform root cause analysis

Runner up – Digitate Ideathon 2018
Topic: Interactive learning interface – asks relevant questions to build knowledge graphs

"On the spot award"
For excellence in solution proposal

"Star team award"
Collaborative effort for problem management

"Special Initiative award"
Displaying out-of-the-box thinking

SKILLS

Python/R	AI/ML
Mathematics	Algorithms
Tensorflow/PyTorch	AzureML
Knime/H20	Spark/Databricks