

Mohit Mayank

Machine Learning Engineer – Tata Consultancy Services

3 years experience in developing Data science and Machine Learning solutions and algorithms using Python and R language. Two years in a row assessed with top 'A' performance band. Winner of TCS SUPERCoder - a TCS wide competitive coding competition. Restless technologist with a bug to learn the latest technologies and share as blogs over at my website ☺

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WORK EXPERIENCE

Machine learning Engineer

Tata Research Development and Design Centre, TCS

2016-Present

Pune, India

Project: Digitate – Build AI 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
(formerly 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

Deep Learning

Mathematics

Algorithms

Tensorflow

Keras

Knime

H2O Driverless AI