

# Mohit Mayank

## Senior Data Scientist – AlgoAnalytics

- 5+ years of industrial experience in Finance, Sales, Retail and Banking domain.
- Leading Data Science team to create accurate models and efficient algorithms.
- AI/ML researcher with work on cutting edge Deep Learning research.
- Guest lecturer and collaborator at University of Tartu.
- Creator of "Jaal" & Author of "Lazy Data Science Guide".
- Winner of TCS SUPERCoder 2019 - a company wide coding competition.

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## WORK EXPERIENCE

### Senior Data Scientist

AlgoAnalytics

2021 - Present

Pune, India

#### Natural Language Processing (NLP)

- Financial events extraction; extracting relevant financial real-world events like acquisitions or investment, from unstructured texts like news, social media posts, etc.
- Stock market analysis; identify hidden signals on price, volume and news related to stock market by leveraging NLP algorithms like sentiment analysis, entity recognition, summarization, topic detection and others.

### Data Scientist

Tata Research Development and Design Centre, TCS

2016 - 2021

Pune, India

Projects: Digitate and Intelligent Services Network

#### Natural Language Processing (NLP)

- Question-Answer chatbot; virtual assistant for project's flagship solution that increased daily impressions by 10% and reduced human intervention by 40%
- Issue extraction; identify different types of system alerts from IT ticket's descriptions for descriptive analysis of enterprise
- Resolution notes mining; mine L1/L2/L3's alert resolution notes to generate rules to automate frequently occurring errors

#### Computer Vision (CV)

- Business Card Reader; OCR engine to extract entities from multi-lingual business cards for ultra-fast personnel contact onboarding
- Math formula identification; extract handwritten math expressions from documents for fast digitalization and education purposes

#### Forecasting

- Marathon prediction; create real-time model to predict NY marathon runner's race completion time with over 80% accuracy
- Enterprise revenue prediction; revenue forecasting of company's hierarchical business units with ~91% accuracy

#### Optimization

- System expert analysis; find best L1/L2/L3 resolver for an error by performing multiple objective optimization, leading to reduction of overall MTTR by 15%
- Personalized pricing model; find optimal Batch analytics pricing by minimizing jobs in analysis with minimum adverse effect on SLA prediction accuracy

#### Causality Analysis

- Root-Cause analysis; incident management on structural graph of the enterprise to identify correct root cause for an system level event.
- What-If analysis; model causality graph of an enterprise to perform intervention on behavior of services and ask counterfactual business analysis questions

#### Recommendation System

- Enterprise Sales; hybrid recommendation system to generate B2B suggestions for company's Sales team with major focus on accuracy and explainability

### Research Intern

Centre for Development in Advanced Computing

2015

Pune, India

#### Speech Recognition

Design and developed IoT Speech Recognition engine in Indian languages and deployed 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

## ACHIEVEMENTS

### Rank 1 – TCS SUPERCoder 2019

Beat >20k associates to win the prestigious 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 KG learning interface – asks relevant questions to build knowledge graphs

### “On the spot award”

For excellence in quick solution proposal and fast deployment

### “Star team award”

Collaborative effort for problem management

## PUBLICATIONS/ARTICLES

- [P] DEAP-FAKED: Knowledge Graph based Approach for Fake News Detection
- [P] Intrinsic analysis for dual word embedding space models
- [A] Building chatbot with Rasa (35k views, 802 claps)
- [A] Introduction to Genetic Algorithm (9.8k reads, 300 claps)
- [A] Reinforcement Learning with Multi-Arm bandit (6.5k reads, 100 claps)
- [A] Generating images using text: The dawn of the AI dreamers (1.2k reads, 30 claps)
- [A] A Guide to Python Good Practices (3.7k reads, 60 claps)

## SKILLS

Python/R

AI/ML/Data Science

Mathematics

Databases

Tensorflow/Keras/PyTorch

Visualization

Azure / AWS /  
Google cloud