

# Pratik Deoolwadikar

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Mumbai, India

## WORK EXPERIENCE

### Data Scientist - Netcore Solutions

Apr 2019 - Present

- Designed, built email auto-tagging algorithm using information retrieval, knowledge graphs along with optimized search engine API requests, to extract keywords and their base categories, while clustering categories using word vectors.
- Improve and restructure base algorithm of Quinto.ai's chatbot, using deeper language model to generate better sentence vectors while optimizing query handling and overall data pipelining of the web app.
- Employing the use of Attention based language models like BERT and Universal Sentence Encoder, to filter text generation corpus by matching sentence vector using similarity, which is later utilized by Hidden Markov model.
- Crafting features using custom mathematical algorithms and writing complex queries for audience segment prediction.

### Data Scientist - NanoPrecise Sci Corp

Nov 2018 - Apr 2019

- Designed composite time series algorithms using ML(LSTM), Signal processing (Signal filters, DTW) and math modeling (Extrapolating using power functions) to pre identify operational failures, health and Life of industrial assets.
- Analyzed acoustic emission using signal processing and noise filtering to discover and map equipment failure patterns.
- Designed battery life estimation algorithm for IoT sensors based on their spatial positioning and historical utilization.
- Was part of core technical team in designing and building their revamped data pipeline handling backend architecture from scratch, employing techniques like parallel input processing along with utilities like AWS S3, Redis, Apache Kafka, Docker.

## PROJECTS

### Human Activity Recognition, Deep LSTM on Android

- Realtime activity prediction on spatial data from Accelerometer on Android, amongst six different activities.

### Audience Segmentation, Graph Neural Network

- Segment audiences by categorizing complex relationships using GNN, trained on engineered features from email corpus.

### Semantic Topic Clustering, Universal Sentence Encoder

- Clustering topics using attention based language model based on semantic relationships among topics for analysis.

### Behavioral Cloning, Convolutional Neural Network

- Used CNN to predict steering angle from augmented images and drive a car in the simulator, as a part of Udacity Self Driving Car Nanodegree.

## CERTIFICATION

### Machine Learning Engineer

#### Amazon, Kaggle Certified - Udacity

- Mastered Image processing/ Computer Vision, Deep Learning, Reinforcement Learning.
- Developed complex models using Tensorflow, Keras, Pytorch as project frameworks.

AUG 2018

## SKILLS

### Languages

Python, R, Java, JavaScript, Ruby, C, HTML/CSS, C++, C#, PHP & MySQL.

### Framework/Environments

TensorFlow, Keras, PyTorch, NodeJS, Redis, Docker, Vertica DB, MongoDB, Apache Spark, S3, EC2, Deeplearning4j, Django, Rails, Matlab.

## AWARDS

### Smart India Hackathon 2017

#### Awarded By

- Ministry of Road Transport and Highways, Government of India.
- Persistent Systems Ltd.

APR 2017

## EDUCATION

### B.E in Computer Engineering

A.P. Shah Institute of Technology

D.T.E, University of Mumbai, India

AUG 2018

### Diploma in Mechanical Engineering

Maharashtra State Board of Technical Education, Thane, India

JUN 2015

- Website

pratikdk.github.io

- Github

github.com/pratikdk

- LinkedIn

linkedin.com/in/pratikdeoolwadikar