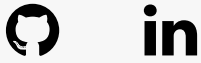


## Prateek Singh

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Find Me



Courses

- > Machine Learning
- > Artificial Intelligence
- > Digital Image Processing
- > Information Retrieval & Extraction
- > Deep Learning NLP (Stanford cs224d)
- > Recommender Systems
- > Statistical Methods in AI
- > Computer Vision
- > Algorithms
- > Data Structures
- > Operating Systems
- > Probability & Random Processes

Languages

- > C/C++
- > Python
- > Java
- > SQL
- > Bash

Framework

- > Tensorflow, Keras & Pytorch
- > OpenCV, Scikit & Matlab
- > Hadoop & Spark
- > Caffe & Theano

Positions Held

**Kings Of ML Coordinator**  
**Felicity, IIIT**  
ML Event of annual fest of college

## Experience

**B.Tech ECE + Hons. ML|CV**  
IIIT Hyderabad **CGPA**

**2014-18**  
**9.18/10**

## Current

**Data Scientist @ Amazon**  
Amazon HYD13

**Present**

**Machine Learning Intern**  
Sprinklr R&D Inc. Delhi

**May 2017**

- > Last Mile Sciences
- > Routing and Maps Intelligence

**SDE + Deep Learning Intern**  
Netra Inc. Boston

**Aug 2017**

**Applied Data Scientist @ Flipkart** **Previous**  
Bengaluru, India

**Teaching Assistant**

**6 Semesters**

SMAI, Computer Vision, Probability

- > Dynamic Pricing using RL
- > Cannibalisation Clustering

## Projects

### Off-Policy Weighted Importance Sampling RL Agent

Reinforcement Learning

Keras

Implemented Off-Policy Monte Carlo for Discounting Optimisation Problem while accounting for Cannibalisation. Developed Offline Evaluation for the same besides AB testing.

### SSD | Py-Faster-RCNN Scale Improvement for Car Logos

Caffe

Python

Tensorflow

Modified the Single Shot Detection network using VGG16 and RESNET50 to detect and classify across 4 genres namely - age, gender, ethnicity and sentiment simultaneously. Improved scale and aspect ratio mechanism of Py-Faster to enable the smallest of car logos. Obtained 20fps speed with SSD.

### Generative Models and EM Algorithm

C++

OpenCV

Developed and deployed an automatic foreground segmentation tool using mincut concept and EM algorithm. Application includes online foreground cut and processing with background filters like cartooniser, pencil sketch etc.

### Novelty-Handling Movie-Recommender

Tensorflow

MATLAB

Built a Movie-Recommender using linear blend of Collaborative Filtering and Content-Based Recommendation involving genre tags metadata. The final model can now recommend newer movies which have not yet been rated by users by directly cross correlating user-genre-vector with movie-genre-vector thus handling the cold-start problem.

### Linux Mines Bot

Bash

C

Developed a smart bot for Minesweeper version of Ubuntu which solves 16x16 maze within 10 seconds of play graphically on the computer screen automatically.

### Wiki Search Engine

Java

Information Retrieval and Extraction

Python

Implemented efficient and scalable search engine on Wikipedia dump using dense-coding and multi-threading. It outputs top relevant results based on the tf-idf cosine scores.

## Achievements

2017

- > Secured 3 rank in the Flydubai AI Hackathon. Won Round-trip to Dubai.

2014-17

- > Secured place in Dean's Academic Merit List - 7 consecutive semesters.

2016

- > Cleared PDR & CDR rounds in the American Astronautical Society(AAS) and American Institute of Aeronautics and Astronautics(AIAA) organized NASA affiliated competition CANSAT.

2014

- > Secured rank in Top 0.3% among 1.3 million candidates in JEE Mains 2014.

