Prateek Singhi

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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 **2014-18**
IIIT Hyderabad **CGPA** **9.18/10**

Machine Learning Intern **May 2017**
Sprinklr R&D Inc. Delhi

SDE + Deep Learning Intern **Aug 2017**
Netra Inc. Boston

Teaching Assistant **6 Semesters**
SMAI, Computer Vision, Probability

Current

Data Scientist @ Amazon **Present**
Amazon HYD13

- Last Mile Sciences
- Routing and Maps Intelligence

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

- 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.