Yogesh Garg

(628) 600 8752 yogesh.garg@columbia.edu
219 Cumberland Street, San Francisco, CA http://github.com/yogeshg/

Education

Columbia University New York, NY
M.S. in Computer Science, concentration in Machine Learning, GPA: 3.925 *Aug, 2016 – Dec, 2017*

Indian Institute of Technology, Delhi New Delhi, India
Integrated M.Tech. in Mathematics and Computing, GPA: 8.25 *July, 2009 – July, 2014*

Professional Experience

Databricks, Inc. San Francisco, CA
Core Machine Learning, Software Engineer *Feb, 2018 – Present*

- Designed and developed a framework to enable distrbuted deep learning using Apache Spark
- Tuned performance and fixed bugs in Spark MLlib and Spark Deep Learning Pipelines
- Benchmarked performance of various packages and included them in machine learning runtime

Tesla Motors Palo Alto, CA
Fleet Analytics, Data Platform Engineer Intern *May, 2017 – Aug, 2017*

- Introduced aggregates on a distributed store for Model 3 firmware logs to enhance query time
- Built a framework to define experiments on distributed systems to allow service level tooling
- Identified major use cases and added optimisations in Hbase coprocessor and query web service

AlphaGrep Securities Mumbai, India
Trading Systems, Senior Analyst *Jan, 2016 – July, 2016*

- Developed a latency-sensitive trade execution algorithms for mid-frequency algorithmic trading
- Created a live market data server for broadcasting data to multiple servers over TCP in C++
- Built an integrator to listen to live and query historical market data servers for a charting tool

Deutsche Bank CIB Centre Mumbai, India
Equity Trading Quantitative Analyst *June, 2014 – Dec, 2015*

- Researched on best executions on dark pools and behavior of order routing algorithms
- Played a key role in building a global datamart to house and analyze transactional data in q/kdb+

Project Work

- Detection of foodborne disease outbreaks using word vectors and convolutional neural layers *2017*
- Wrote full-featured C++ logger using **template metaprogramming** to optimize run time *2017*
- Studied **chord vectors** and applied them for the task of music classification on Midi files *2017*
- Implemented artistic style transfer between images using deep CNN in **Theano** *2016*
- **Automatic speech generator** using n-grams based on language models *2014*
- Implemented an algorithm to solve **Fuzzy Linear Programming** problem in Matlab *2013*
- Built a Sokoban Solver using bi-directional search, deadlocks detection and Zobrist hashing *2011*

Publication

Yogesh Garg and Niladri Chatterjee. Sentiment Analysis of Twitter Feeds. *Third International Conference on Big Data Analytics (BDA) 2014*, LNCS, volume 8883, pp 33–52. Springer, 2014.

Courses

Deep Learning, Advanced Machine Learning, Advanced Algorithms, Artificial Intelligence, Design in C++, Advanced Databases, Theory of Automata, Computer Networks, Pragmatics of Programming Languages, Statistical Methods and Algorithms, Probability Theory, Optimization Methods, Combinatorics, Number Theory, Linear Algebra, Discrete Mathematics

Technical Skills

C++, Python, Java, q/kdb+

Spark, Keras, Tensorflow, Theano, Git, Linux

Positions of Responsibility

Teaching assistant for **Deep Learning** and **Data Structures in C/C++** at Columbia *2016-17*

Teaching assistant for **Statistics**, **Probability** and **Optimization** courses at IIT Delhi *2013–14*

Worked with coordinator to organize **Regional Mathematical Olympiad**, Delhi region *2010*

Organized a concert with international artists, crowd of 5K+, coverage in Metal Hammer *2012*