Nishanth Parameshwar Pavinkurve
Curriculum vitae

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WORK EXPERIENCE

Columbia University
Programmer Analyst JUNE 2018 – PRESENT
Python, BASH, Stanford CoreNLP

- Part of the Data and Research Center - Curation team on the **All-of-Us** project

Parabole
Machine Learning, Co-op SEP 2017 – MAY 2018
Python, **Java**, BASH, Kafka, Stanford CoreNLP, Mallet

- Developed an algorithm to assist in parsing documents by detecting phrases with ~85% accuracy, improving upon the previous algorithm based on co-occurence by ~55%. Integrated the module into the Kafka workflow pipeline utilized by the firm.

Nomura
Quantitative Analyst JUN 2015 – AUG 2016
Python, **VBA**, **SQL**, Pandas

- Developed methodologies to account for corrections in risk classes not accounted for by the VaR (Value at Risk) engine employed by the firm, in accordance with the latest regulatory capital requirements.

PROJECTS

Deep RL on Swing Copter & Helicopter games
Prof. Fergus, Prof. Mohri OCT – DEC 2017
Python, TensorFlow, Pygame, OpenCV

- Developed Python versions of Swing Copters and Helicopter and developed reinforcement learning agents to play the games. Estimated the expected reward using a Q-function using Deep Convolutional Neural Networks to achieve the same.

- Achieved consistent growth in learning, rendering the RL agents capable of attaining proficiency surpassing that of humans.

Fake news source distinguisher
Prof. Mishra MAR – JUN 2017
Python, Goose, BeautifulSoup, NLTK

- Performed hypothesis testing and successfully proved with a p-value of ~0.03 that fake news/propaganda websites have fundamentally different lexical characteristics compared to unbiased news sources.

- Analyzed the lexical diversity, sentiment scores and readability levels of ~150,000 articles from over 1,500 news source websites.

Recommendation system for Reddit
Prof. McIntosh MAR - JUN 2017
Apache Hadoop

- Developed a subreddit recommendation system for Reddit using collaborative filtering by measuring the Jaccard similarity between subreddits.

- Analyzed subscriber and commenter information of over 1 million subreddits encompassing ~230 million registered users from over 1 TB of Reddit data.

EDUCATION

2016 – 2018	**Courant Institute, NYU** MS, Computer Science *GPA: 3.8/4* Graduation: May 16, 2018
2010 – 2015	**IIT Madras** BTech/MTech, EE *Minor: Math for CS*

PUBLICATIONS/ACHIEVEMENTS

2014	**QoS Constrained Optimal Sink and Relay Placement in Planned Wireless Sensor Networks** Abhijit Bhattacharya, Akhila Rao, K. P. Naveen, **P. P. Nishanth**, S. V. R. Anand, Anurag Kumar; *IEEE International Conference on Signal Processing and Communications* [doi:10.1109/SPCOM.2014.6983933]
2010	**All India Rank 546 in IIT-JEE** *[Out of ~0.5 million candidates]*

INTERESTS

Machine Learning, Quantitative/Data Analytics

COURSES

ML	Foundations of ML, Computer Vision, High Performance Computing for ML
DATABASE	Real-time and Big Data Analytics, Advanced Database Systems

SOFTWARE SKILLS

LANGUAGES	Python, C++, Java, Apache Hadoop, BASH, LaTeX, MySQL, VBA (MS Excel), MATLAB
PACKAGES	PyTorch, TensorFlow, Stanford CoreNLP, Mallet, Kafka, Gensim, NLTK, Numpy, Pandas, OpenCV, Scipy, Spacy, Intel MKL, Boost, CUDA, Open MPI, BeautifulSoup