Aaksha Meghawat

Machine Learning @ Apple
San Francisco Bay Area

Summary

I measure my life by the impact I make. I am a techie and I love making cool products. I believe that data and scale mean power. Which is why I plunged into the cerebral world of algorithms and the human-machine frontier at CMU. It is my vision to combine the capabilities of technology with the complexities of people. Data and lots of it, viewed/ transformed into the right perspective can enhance human decisions for speed, ease and quality. It is my objective to build systems and products that make this happen.

I spent 2.5 years in industry driving change in business processes using algorithms, acquiring an indepth industry perspective. And then I was a graduate research assistant at CMU doing some exciting cutting-edge research in machine learning and data science, acquiring a rigorous academic perspective. It is my hope that in my work at Apple, I will be able to combine the two perspectives to create impactful and amazing technology products!

Experience

Apple
Machine Learning Engineer
September 2017 - Present (3 years)
San Francisco Bay Area

Tech Lead (DRI) for Global Expansion of Hyper-Local Language Models for improved named entity recognition in Automatic Speech Recognition (ASR). Developed location based ASR models for the largest 6 iPhone markets: enUS, enGB, enAU, deDE, frFR, zhCN, servicing 1.5 million location related queries daily.

Presented graduate research at Apple ML Summit 2018, Title: "Representation Learning for Small Datasets" attended by 1000+ Apple employees (at the Steve Jobs Theatre!).

Some of my work for Siri got love from Techcrunch. Take a look.

Carnegie Mellon University
Graduate Research Assistant
August 2015 - September 2017 (2 years 2 months)
Greater Pittsburgh Area

Adapting skip-thoughts & LSTMs for deep style transfer in conversational agents (Alexa stack, Tensorflow)
Combined statistical testing with CNNs for large scale Emotion Recognition, Opinion Detection & Sentiment Analysis on Youtube videos. (arXiv link below, Published in ICME '17 with Prof. Eric Xing and LP Morency)
Designed & trained Deep Boltzmann Machines to model the generative distribution of handwritten digits (Matlab)
Developed a finite Markov Decision reinforcement learning model for the FrozenLake environment & deployed a custom made OpenAI Gym environment. (Python)
Experimented with Gaussian HMMs, Topic Models PCA & Factor Analysis to model collaboration discourse in Open Source Communities (Github) (~2 million projects, ~1 million members, ~1 million conversations)
http://bit.ly/2hxJWpB
Samples of my work are hosted on Github (linked below).
My research work and graduate education is supported via a research fellowship from National Science Foundation under the NSF BIGDATA initiative.

Sutherland Global Services
Data Scientist, Analytics
January 2014 - June 2015 (1 year 6 months)
Mumbai Area, India

►Developed a signature sentiment analysis toolkit which was launched & used across the company to streamline & improve textual sentiment analysis.
► Designed NLP, ML pipelines for real-time chat classification, summarization & business insight generation (R, Python)
► Geospatial Network optimization for improved logistics (R, GoogleMaps API)

Opera Solutions
Software Specialist
September 2013 - January 2014 (5 months)

Developed a unified in-house platform for mathematical and statistical analysis of large datasets (Java)

Morgan Stanley
Technology Analyst (Intern)
January 2013 - June 2013 (6 months)
Mumbai Area, India

► Developed automation software for testing risk management applications. (Java)
► The automation software was able to process and verify 11000+ test cases in 1 day covering all possible combinations of parameter values (compared to 800 test cases in 8 days previously).
► Efficiency gain of 8 work days, increase in accuracy and robustness of testing

London Business School
Research Assistant
July 2012 - December 2012 (6 months)
London, United Kingdom

► Redesigned 'Hedge Fund Management Game', a business simulation game to train 60-100 students of the elective 'Hedge Funds' for the LBS MBA program ranked 1 globally. (Python, PostgreSQL, R and Django web framework)
► Teaching Assistant in the course 'Equity Investment Management'.

Brevan Howard
Research Intern
June 2011 - July 2011 (2 months)

► Studied fundamentals of bonds, credit derivative swaps, credit derivative indices, specifically calibration of default probabilities, basic CDS pricing and credit curves.

Mentored-Research
Intern- Equity Research
January 2011 - May 2011 (5 months)

► Formulated an investment thesis on a publicly-traded company and communicated the opinion through an equity research report.
www.mentored-research.com

Center for Entrepreneurial Leadership, BITS Pilani
Coordinator, Out-of-Box Conference
2011 - 2011 (less than a year)
BITS Pilani

► Led a team of 40 people to organize the Out-of-Box Conference, a conclave of technology geeks, scientists, creative geniuses and business rebels.

► Based on the TED format

► Instrumental in getting revolutionaries like Alphonse Kannanthanam, Vasu Dixit and Dr. P Namperumalsamy as speakers.

► The event was part of the international business plan competition, Conquest BITS, Pilani 2011.

Birla Institute of Technology and Science Pilani
1 year

Captain, Athletics Team
2011 - 2011 (less than a year)
BITS Pilani

► Led a team of 20 student athletes to participate in BOSM 2011 and won the gold cup for the best athletics team of the tournament.

Professional Assistant, Computer Programming II
August 2010 - December 2010 (5 months)
BITS Pilani

► Prepared curriculum assignments and designed evaluation material

► Assisted and supervised students in lab sessions for the course (With excellent recommendation)

WATConsult - Social Media Agency
Blogger, Social Media
May 2010 - July 2010 (3 months)

► Analyzed technology and business trends in the web,social media, online services and software industry and prepared articles for WATBlog readers, followers and subscribers

► Conducted interviews with business and industry professionals on behalf of the company for analysis and research

Trusted Shares and Investments
Software Programmer (Intern)
May 2009 - July 2010 (1 year 3 months)

► Led a team of 2 programmers to develop a suite of software programs in C++ to simulate and optimize the Turtle Trading model by Richard Dennis, enabling statistical and heuristic analysis of large amounts of financial data.

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Education

Carnegie Mellon University
Masters, Language Technologies Institute · (2015 - 2017)

Birla Institute of Technology and Science, Pilani
B.E.(Hons.) Computer Science, Masters in Mathematics · (2008 - 2013)

Stanford Continuing Studies
European Philosophy, Philosophy · (2019 - 2019)

Lilavatibai Podar Senior Secondary High School
CISCE Grade XII, Science · (2005 - 2007)

Sahyadri School, Krishnamurti Foundation India
ICSE Grade X · (2000 - 2005)