Aaditya Prakash (Adi)
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Blog 🔊, Github ⚪, LinkedIn in, Twitter 🐦

RESEARCH		
	Current: Memory Networks for transfer learning, Applications of GANs	
	Past : Paraphrase Generation ↗ , Applications of Memory Networks in NLP ↗	Advisor: Sadid Hasan
	Semantic Image Compression using CNN↗ , Visual Question Answering ↗	Advisor: James Storer
	Computational Fact Checking with Retrospection ↗	Advisor: Liuba Shrira

EDUCATION		
	PhD, Computer Science, Brandeis University. Advisor: Prof. James Storer ↗	expected 2018
	MA, Computer Science, Brandeis University.	May 2015
	Courses: Algorithms, Distributed Systems, Statistical approaches to NLP	GPA = 4.0/4.0
	Computational Semantics, Computational Neuroscience, Information Retrieval	
	BS, Biomedical Engineering, Bharath University, Chennai, India	2004-2008
	Courses: Calculus(I, II), Complex Analysis, Numerical Methods, Digital Signal Processing	GPA = 9.36/10
	Biostatistics, Medical Physics, Medical Imaging Lab, Modeling of Physiological Systems	Rank = 1/71
	Completed 24 MOOC courses from Coursera, Udacity, edX, Harvard Business School	Certificates ↗
	Machine Learning (Ng), Game Theory, Algorithms, Neural Networks (Hinton), AI (Abbeel)	

COMPUTING SKILLS

Languages	:	C, Python, C++, CUDA, Matlab
Deep Learning	:	TensorFlow, Keras, Theano, Torch
Research Tools	:	iPython, SciPy, NumPy, NLTK, OpenCV, Git, LaTeX
Big Data Tools	:	Hadoop, MapReduce, MongoDB, Mahout, Spark
Code Samples	:	VQA [Keras] ↗ , Multi-structure ROI [Tensorflow] ↗ , Fallacy Detector [Haskell] ↗

EXPERIENCE

- Intern, Qualcomm Research — Summer 2017
    - Explored model parallelism for convolutional neural networks
    - Architecture learning for reduced model complexity

- Deep Learning Developer (Contract), Spin Master™, Canada — Oct-Dec 2016
    - Designed CNN models for fine grained classification of various toys
    - Developed Android app for classification/detection in real-time

- Research Scientist (Part-time), AI Labs, Philips Research, Cambridge, MA — 2016 − 2017

- Research Intern, AI Labs, Philips Research, Cambridge, MA — Summer 2016
    - Explored applications of LSTM in sequence to sequence learning
    - Developed efficient representation of memory state for Memory Networks

- Teaching Assistant, Brandeis University — 2013-current
    - Mobile Application Development
    - Introduction to Big Data Analysis
    - Introduction to Algorithms
    - Data Structures
    - Fundamentals of Artificial Intelligence
    - Scientific Data Processing in MATLAB
    - Theory of Computation
    - Data Compression & Multimedia

- Big Data Analyst, Brandeis University   Summer 2014

    – Researched various new techniques in data analysis on Hadoop and Spark framework.
    – Designed assignments and quizzes for a graduate level course.

- Independent Algorithmic Trading   2010-2012

    – Statistical Arbitrage trades on co-integrated pairs.
    – Designed and formulated low latency strategies on butterfly spread options
    – Designed, developed and coded several algorithmic formulas on a contract basis

- Senior Systems Engineer, Infosys Limited ⤢ , Pune, India   2009-2013

    – Developed new algorithm to visualize large unstructured datasets
    – Implemented various Machine Learning algorithms on MapReduce and CUDA
    – Analyzed various fault measures in distributed optimization problems
    – Debug and support of Banking Software implemented across major banks.

- Independent Tutoring, Bharath University ⤢   2007-2009

    – Courses taught: C, C++, Java, Maths [I, II, III, IV], Computer Architecture.
    – Taught more than 150 students, batch size ranging from 2 to 15

AWARDS

- Outstanding Teaching Fellow - 2017, Brandeis University

- Advisory board member, OneQube

- Honorable spotlight award, Visual Question Answering Challenge, CVPR 2016 ⤢

- Best paper award at International Conference on Perspective of Computer Confluence, Pune 2012

- Gold Medal for being university topper, Bharath University, Chennai 2008

PUBLICATIONS

- PDF⤢   Prakash, Aaditya, et al. Semantic Perceptual Image Compression using Deep Convolution Networks.
  IEEE DCC (2017).

- PDF⤢   Prakash, Aaditya, et al. Condensed Memory Networks for Clinical Diagnostic Inferencing.
  AAAI (2017).

- PDF⤢   Prakash, Aaditya, et al. Neural Paraphrase Generation with Stacked Residual LSTM Networks.
  COLING (2016).

- PDF⤢   Prakash, A. & Storer, J, Highway Networks for Visual Question Answering,
  CVPR Workshop (VQA) (2016).

- PDF⤢   Prakash, A. Reconstructing Self Organizing Maps as Spider Graphs for better visual interpretation of
  large unstructured datasets. *Infosys Lab Briefings*, Vol 11.
  INFY (2013)

- PDF⤢   Prakash, A. Measures of Fault Tolerance in Distributed Simulated Annealing. *Proceedings of
  International Conference on Perspective of Computer Confluence with Sciences* Vol 1 pp111-114.
  PICPC (2012)

- PDF⤢   Prakash, A., & Jha, R. K. New Interface Protocol to Connect Multiple Bank Networks from
  a Single Outlet. *International Journal of Computer Applications, NY, USA*, Vol 55 pp1-9.
  IJCA (2012)