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Research Fellow,
Microsoft Research India, Bangalore

Education	Indian Institue of Technology, Delhi <i>Bachelor of Technology, Computer Science and Engineering</i> CGPA: 9.11/10 Computer Science GPA: 9.116/10	2013-2017
	Abhinav Public School, New Delhi <i>Senior Secondary, CBSE</i> Percentage: 92.2%	2012-2013
Scholastic Achievements	Awarded IITD Semester Merit Award by IIT Delhi for being amongst top 7% students. Awarded scholarship for qualifying National Talent Search Exam conducted by NCERT Secured All India Rank - 107(GE) in IIT JEE Advanced 2013	
Interests	Machine Learning, Artificial Intelligence, Computational Neuroscience	
Industry Experience	Research Fellow, Microsoft Research Advisors: <i>S. Sellamanickam, Arun Iyer</i> Currently working on "Unsupervised representation learning on heterogeneous graphs". Aiming to use the representation for a variety of intelligent tools on Outlook email network. Evaluating prior work and proposed approaches on Outlook and Academic social networks.	Jul 2017 - Present
	Research Intern, Adobe Research Advisor: <i>Sunav Choudhary</i> Worked on "Usage-based Prototype Evaluation" for "Mobile User Intelligence" domain. Employed language modeling techniques and topic modeling algorithms for the solution. Developed a prototype for demonstrating the use cases before Adobe Research lab.	May 2016 - July 2016
	Summer Intern, Niki.ai Advisors: <i>Nitin Babel, Keshav Prawasi</i> Worked on building an intelligent chat-based dialog for services like recharge, cab booking. Designed a recommendation module using collaborative filtering for the dialog system.	May 2015 - July 2015
Research Projects	Dynamic Partition Bloom Filters Advisor: <i>Prof. Amitabha Bagchi, IIT Delhi</i> Proposed a novel variant of Bloom filters for dynamic sets with reduced false positives. Theoretical guarantees provided for the proposed structure along with empirical evaluation. Our work is in process of being submitted to VLDB , 2018.	Jul, 2016 - Jul, 2017
	Independent Study: Machine learning on fMRI dataset Advisor: <i>Prof. Tapan Gandhi, IIT Delhi</i> Designed a system to predict whether an individual has Epilepsy or not using fMRI data. It Involved identification and ranking of prominent brain regions responsible for Epilepsy. Worked in collaboration with Neuroscience researchers from NIMHANS, Bangalore. Abstract submitted to ISMRM meeting, 2018 and full work will be submitted to NeuroImage .	Jan, 2017 - July, 2017
	Outdoor navigation for blind using image processing Advisor: <i>Prof. M. Balakrishnan, IIT Delhi</i> Designed an assistive device based on haptic feedback and visual signboard detection. Worked on automated image capture, image processing and text recognition using Tesseract OCR. Presented our project during the annual Open House, IIT Delhi.	Jan, 2015 - May, 2015

Teaching Experience	Teaching Assistant: COL 100, IIT Delhi	Jan, 2017 - May, 2017
	Instructors: <i>Prof. Subodh Kumar, Prof. Huzur Saran</i> Conducted lab and doubt sessions for Introduction to Computer Science (COL101) Course. Assisted instructors in evaluating both written and programming tests and assignments.	
Course Projects	Game of Entropy: Adversarial search	Oct, 2015 - Nov, 2015
	Game playing agent designed using modified expecti-minimax search with alpha-beta pruning of nodes. Optimum features were selected for evaluation of a game configuration with reinforcement learning of weights for each feature.	
	Game of BlackJack using Markov Decision Process	Sept, 2015 - Oct, 2015
	Modeled the Game of Blackjack using a probabilistic state transition model and obtained the appropriate action policy using policy iteration method.	
	Parallel Computing	Jan, 2016 - May, 2016
	Parallel solvers were implemented for Sudoku, Travelling Salesman Problem, Bitonic sort using OpenMP (multithreading) and MPI (multiprocessing). Suitable domain-specific heuristics were employed for effective load balancing and improved efficiency.	
	Virtualization (Running JOS on JOS)	Apr, 2016 - May, 2016
	Extended components of JOS (MIT's academic Operating System) for enabling hardware based virtualization using Intel VT-x. Implemented modules for interactions between guest and host OS(hypercalls) and memory management(extended page tables).	
Term Paper	Deep Learning and Neuroscience	PDF
	Performed a literature review of Deep Learning techniques employed for modeling brain functionality. The paper consisted of dedicated sections for each sensory cortex of the brain.	
Relevant Courses	Principles of Artificial Intelligence	Machine Learning
	Mathematics for Data Science	Probabilistic Graphical Models
	Computational Neuroscience	Mathematical Programming
	Intro. to Parallel and Distributed Computing	Algebra
Extra Curricular	Internship for Social Cause: Aga Khan Foundation	Dec, 2016
	Mentored a group of underprivileged students as part of a computer training course. Conducted sessions on topics like Social Media, Cyberbullying and Online Learning.	
	National Service Scheme	July, 2013 - July, 2017
	Participated in activities such as blood donation camps, emergency blood donations, cloth collection, campus cleanliness, blanket distribution and volunteering for National Association for Blind among others.	
	Fine Arts Club, IIT Delhi	
	Regularly participated in events such as charcoal painting, oil painting, wall painting, mask painting and modern art. Secured 3rd position in Inter-hostel League event in modern art.	