

Manu Singh

[msingh23.github.io](https://github.com/msingh23) | manusingh.infinity@gmail.com | (812) 558 8224
700 Huron Ave, Apt No. 01D, Cambridge, MA – 02138

Education	Indiana University Bloomington M.S. in Computer Science (Master Thesis Track Advisor David Crandall) Relevant Courses: Data Mining (A+), Vision for Intelligent Robot (A+), Image Processing & Recognition (A), Algorithms Design (A+), Statistical Learning (A)	Aug`14 – May`16 GPA: 4.0/4.0
	College of Engineering, Roorkee B.Tech in Electronics Engineering	Aug`06 – May`10 GPA: 3.7/4.0
Research	Computer Vision Lab Research Assistant <ul style="list-style-type: none">Researched on improving geolocation in large scale unconstrained social images.Developed deep learning models which combine visual and textual data. [Poster]	Jan`16 – May`16
Experience	IBM Watson Health Cognitive Software Engineer <ul style="list-style-type: none">Developing API Platform to enable micro services in Watson Health cloud.	Jun`16 – Present
	Sears Holding Software Development Intern <ul style="list-style-type: none">Developed an intelligent computer vision application to make retails stores innovative by enabling Visual Search and monitoring check out queues at store.Build an indoor location based services platform for information exchange using beacons.	May`15 – Dec`15
	Toshiba Software R&D Software Engineer <ul style="list-style-type: none">Developed Toshiba Cloud Orchestration and Automation Platform for on demand/workflow driven customer virtual desktop creation (VM Provisioning, Storage Provisioning and Application Provisioning)	Dec`12 – Jun`14
Projects	Tag selection and propagation method for large scale social image classification <ul style="list-style-type: none">Proposed enhancements that can help to improve the selection of annotated text (tags) in images and assist the visual features to build powerful machine recognition models.Achieved an average 1.5% improved accuracy and a seven times faster system. [Report]	Aug`15 – May`16
	Bird & Squirrel Alert System (<i>Object Recognition & Localization</i>) <ul style="list-style-type: none">Developed an Object Oriented alert system in C++ to detect & locate birds & squirrels on a birdfeeder from video. [Demo]Improved the detection accuracy by including motion detection and optical flow information.	Jan`15 – May`15
	Kaggle Microsoft Supervised Malware Classification (<i>Machine Learning</i>) <ul style="list-style-type: none">Developed a classification model on 500 gigabytes of malware programs (source code) using Extreme Gradient Boosting & Random forest. Achieved a log-loss of 0.0625.Extracted features based on byte 4-grams frequency and instruction count. [Report]	Jan`15 – May`15
Skills	Languages & Technologies: Java, Python, Caffe, R, C++, REST, Spring, Hibernate, JUnit, Git Libraries: OpenCV, Caffe, Sklearn, Theano, Tensorflow, NumPy, Pandas.	
Teaching Experience	Associate Instructor – Introduction to Programming, Indiana University, Fall '14 Associate Instructor – Introduction to Programming, Indiana University, Spring '15 Associate Instructor – Computer Vision, Indiana University, Spring '16	
Awards	First Prize, Raspberry pie 48-hour Hackathon: Build a digit recognition system with 99% accuracy on dataset of ~10000 digits. Held at Sears amongst all intern groups in summer of 2015.	

