

# Karan Tyagi

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Available: Jan 2019 – August 2019

## EDUCATION

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### Northeastern University, Boston, MA

College of Computer and Information Science

Sept. 2017 - Present

Candidate for a Master of Science in Computer Science Grade: 3.5/4.0

Expected Graduation: Dec. 2019

Relevant Coursework: Programming Design Paradigm, Algorithms, Data Mining, Information Retrieval

### Institute of Engineering and Technology, Lucknow, India

Bachelor of Technology in Computer Science and Engineering, Grade: 3.68/4.0

Jul. 2010 – Jun. 2014

## TECHNICAL SKILLS

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<b>Programming Languages:</b>	Java, Python, C#, Racket
<b>Systems:</b>	Windows, Linux
<b>Software:</b>	MATLAB, Microsoft Visual Studio, .NET framework, Windows Forms
<b>Web Technologies:</b>	HTML5, CSS3, JavaScript, ASP.NET
<b>Databases:</b>	MySQL, MS SQL
<b>Tools:</b>	Git, Eclipse, Sublime

## EXPERIENCE

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### Teaching Assistant | Northeastern University, Boston

Jan. 2018 – Present

- Grading assignments and projects for subject CS4300 - Computer Graphics.
- Tutoring Labs and conducting course-related doubt sessions for students.

### Student Intern | Forest Survey of India, (Ministry of Environment, Forests and Climate Change, Govt. of India), Dehradun, India

May – Jul. 2013

- Designed a data collection windows app using C# and .NET framework for monitoring the disbursement of funds under the Integrated Forest Management Scheme, Govt. of India
- Optimized the database design and simplified and improved the user interface.
- Digitizing fund disbursement lead to a significant decrease in the man hours and increased the efficiency of the entire process by more than 50%.

## PROJECTS

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### Squash Game Simulation | Northeastern University, Boston

Nov. 2017 – Jan. 2018

- Created a ball - racket game where the player plays to maximize his/her time.
- Implemented the basic rules of squash game using functional programming in *Racket* language.

### American Sign Language Interpreter | HackWITus Hackathon, Boston

Nov. 2017

- Used Leap Motion Controller to detect signs, from American Sign Language, and convert them into text.
- Created a dataset for training a Logistic regression algorithm using Amazon Machine Learning platform.
- Used Python and NumPy for data preprocessing.
- Won the “Best use of Amazon Web Services” prize at ‘HackWITus 2017’, Wentworth Institute of Technology.

### Virtual Mouse | Under graduate major project, IET Lucknow, India

Sept. 2013 – May 2014

- Developed a Windows application using MATLAB and image processing algorithms, which simulated mouse functionality like point-and-click and drag-and-drop using live video feed from laptop’s webcam.
- Compared various color detection algorithms to recognize colored markers on fingertips.
- Improved the response time by optimizing memory management to reduce real time processing lag