Karan Tyagi

karantyagi.github.io | linkedin.com/in/karantyagi-21 | github.com/karantyagi
tyagi.k@husky.neu.edu | 617-785-5835 | Boston MA 02120 | Available: Jan. - Aug. 2019

EDUCATION

Northeastern University, Boston, MA   *Sept. 2017 - Present*
College of Computer and Information Science, **GPA: 3.8**   *Expected Graduation: Dec. 2019*
Master of Science in Computer Science
Relevant Coursework: Algorithms, Programming Design Paradigm, Web Development, Information Retrieval, Data Mining, Database Systems, Managing Software Development

Institute of Engineering and Technology, Lucknow, India   *July 2010 - June 2014*
Bachelor of Technology in Computer Science and Engineering, **GPA: 3.68**

TECHNICAL SKILLS

Programming Languages	Java, Python
Web Technologies	HTML, CSS, Javascript, Bootstrap, jQuery, React, Redux
Frameworks	AngularJS, Express, NodeJS, Spring Boot, .NET, MATLAB
Tools	Git, Maven, Jira, Jenkins, IntelliJ, Eclipse, Visual Studio, Web Storm, Jupyter Notebook
APIs, Libraries	OpenCV, Microsoft Azure, Amazon Web Services (AWS)
Databases	MySQL, MS SQL Server, MongoDB (NoSQL)

EXPERIENCE

Teaching Assistant | *Northeastern University, Boston*   *Jan. - Apr. 2018, Sept. 2018 - Present*
- Conduct labs, office hours and grade assessments for Computer Graphics course
- Assist about 50 students with Graphics programming in C++ and OpenGL

Project Intern | *Indian Ministry of Environment & Forests, Dehradun, India*   *June - July 2013*
- Designed database and developed a windows app using C#, Windows Presentation Foundation and .NET framework for monitoring fund disbursement under the Integrated Forest Management Scheme of Govt. of India.

PROJECTS

Job Search Made Easy | *Northeastern University*   *May - July 2018*
- Designed a job portal and implemented it as a RESTful web app for aggregating jobs from APIs like Github Jobs API and jobs posted by registered recruiters, using **Bootstrap**, **AngularJS**, **Mongoose**, **MongoDB**, **Express**, **NodeJS**

Learning Management System | *Northeastern University*   *Apr. - May 2018*
- Implemented the faculty module as a RESTful web application | **ReactJS**, **Redux**, **Spring Boot**, **Java**, **JPA**, **MySQL**
- Implemented the student module as a RESTful web application using **MEAN** stack | **Angular**, **Node, MongoDB**

Accessible Screen Navigation and conversational assistant for the Blind | *PerkinsHack 2018*   *Feb. 2018*
- Spearheaded the development of a navigation system and integrated various modules to build a prototype
- Programmed the finger detection and beep generation modules using **Python** and **OpenCV**

Search Engine | *Northeastern University*   *Jan. - Apr. 2018*
- Implemented a Web crawler, Indexer, Query processor, Searcher using **Java**, **Apache Lucene** and **Maven**
- Evaluated performance of retrieval models like TF-IDF, BM25, and Query Likelihood model and Lucene

American Sign Language Interpreter | *HackWITus 2017*   *Oct. 2017*
- Constructed a dataset of 60,000 instances for training a logistic regression model using **AWS Machine Learning**
- Detected signs from American Sign Language using Leap Motion hardware and converted them to text using **Python**

Virtual Mouse   *June - July 2017*
- Developed a windows app in **MATLAB** for simulating mouse events using real-time video feed from laptop's webcam
- Overcame the illumination dependency problem by using YCbCr color model along with a manual calibration module

AWARDS

- OvenBot - Display screen navigation for the Blind |**Won "Best Accessibility Design"**   *PerkinsHack 2018*
- American Sign Language Interpreter | **Won "Best use of Amazon Web Service" Prize**   *HackWITus 2017*
- Silver Medal - Academic Excellence Award | 2nd rank in C.S.E. dept. during bachelor's degree   *June 2014*