Karan Tyagi

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EDUCATION

Northeastern University, Boston, MA   *Sept. 2017 - Present*
College of Computer and Information Science   *Expected Graduation: Dec. 2019*
Master of Science in Computer Science, **Grade: 3.8/4.0**

Institute of Engineering and Technology, Lucknow, India   *Jul. 2010 - Jun. 2014*
Bachelor of Technology in Computer Science and Engineering (C.S.E.)

TECHNICAL SKILLS

Programming Languages	Java, Python
Web Technologies	HTML, CSS, JavaScript, jQuery, ReactJS, Redux
Frameworks	AngularJS, NodeJS, Spring, MATLAB
Tools	Git, Github, IntelliJ, Eclipse, Visual Studio, Web Storm
APIs, Libraries	OpenCV, OpenGL, Amazon Web Services
Databases	MySQL (SQL), MongoDB (NoSQL)
Operating Systems	Windows, Linux

EXPERIENCE

Teaching Assistant, Computer Graphics | *Northeastern University, Boston*   *Jan. - Apr. 2018*
- Tutored Labs and conducted course-related doubt sessions for Computer Graphics using C++, OpenGL, Linux

Project Intern | *Indian Ministry of Environment & Forests, Dehradun, India*   *Jun. - Jul. 2013*
- Optimized database design and built a windows application in C#, WPF and .NET framework for monitoring disbursement of funds under the Integrated Forest Management Scheme, Govt. of India
- Digitizing fund disbursement process decreased man hours by more than 50%

PROJECTS

Job Search Made Easy   *May - Jun. 2018*
- Job portal for posting and searching jobs using the MEAN Stack - AngularJS, MongoDB, NodeJS

White Board - Course Management System   *Apr. - May. 2018*
- Online course management system for creating courses and registering students.
- Admin and Faculty modules were built using jQuery, ReactJS using a Spring Boot Java server and MySQL
- Student module was built using the MEAN stack (Bootstrap, AngularJS, NodeJS, MongoDB)

Search Engine   *Jan. - Apr. 2018*
- Implemented a Web crawler, Indexer, Query processor, Searcher, and evaluated performance of TF-IDF, BM25, Query Likelihood Retrieval models and | Java, Maven, Apache Lucene

Virtual Mouse   *Jun. 2013 - Apr. 2014*
- MATLAB Windows application to simulate mouse features like clicking & drag-and-drop using laptop webcam
- Extended this project by adding a manual illumination calibration module
- Compared various color detection algorithms to create an image viewer app with pinch zoom functionality

HACKATHONS AND AWARDS

- *Accessible display screen navigation for the Blind* | **Won "Making a Meal" challenge**   *PerkinsHack 2018*
- *American Sign Language Interpreter* | **Won "Best use of Amazon Web Service" Prize**   *HackWITus 2017*
- *Emotion Recognizing Music Player* | Python, OpenCV, Flask, Microsoft Azure API   *HackBeanPot 2018*
- *Goju-Ryu Karate, Green-II Belt (4th Kyu)* | International Academy of Martial Arts, India   *Aug. 2015*
- *Academic Excellence Award - Silver Medal* | 2nd rank in C.S.E. dept. during Bachelor's degree   *Jun. 2014*