# PRATHAMESH TAJANE

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## EDUCATION

**Northeastern University,** College of Computer & Information Science, Boston, USA          Sept 2016 - Dec 2018
*Master of Science in Computer Science*
Related Courses: Algorithms, Web Development, Information Retrieval, Large Scale Data Processing, Database Management System, Fundamentals of Artificial Intelligence, Managing Software Development

**University of Mumbai**, Mumbai, India                                                                                      May 2014
*Bachelor of Engineering in Information Technology*                                          First Class with Distinction
Relevant Courses: Object Oriented Analysis & Design, Data Structures and Algorithms, Database Technologies

## TECHNICAL KNOWLEDGE

| | |
|---|---|
| **Languages:** | Java, Python, JavaScript(basic),Unix Shell Scripting, Racket |
| **Web Technologies:** | HTML, CSS3, jQuery, AJAX, Bootstrap3, D3.js, NGINX, Docker, Swagger, ExpressJS, NodeJS |
| **Frameworks:** | AngularJS 1.x, Spring, Spring-Boot, Django, React, Redux, RESTful Webservices, Hadoop 2.9.1, Spark |
| **Databases:** | MongoDB, SQLite 3, MySQL, Oracle, Firebase |
| **Cloud Technologies:** | AWS Elastic MapReduce, AWS S3, AWS EC2, AWS RDS, Heroku, MQTT |
| **IDE & Tools:** | Jenkins, Travis CI, IntelliJ IDEA, Eclipse, WebStrom, PyCharm, GitHub, RasperyPi, Arduino, ESP8266 |

## WORK EXPERIENCE

**Northeastern University,** Boston, USA                                                                      Jan 2018 - present
**Research Assistant – IoT Open Innovation Lab**
**IoT Network integration platform (SpringBoot, Amazon Lambda Services, AWS RDS, Docker, Jenkins, SigFox, LoRa, MQTT)**
- Designed an architecture for an integration platform of **SigFox**, **LoRa** and **MQTT** lightweight protocols to build the first dedicated IoT network infrastructure of Northeastern University (Boston Campus)
- Implemented a **Spring Boot** based micro service and converted it into **Docker** container to deploy it on **AWS EC2** instance
- Integrated **Amazon Alexa Skills** with this platform along with automatic load balancer with **NGINX**

**Philips Lighting Research North Americas,** Cambridge, USA
**Research Software Developer Co-op Intern**                                                            Sept 2017 - Jan 2018
**Automated Commissioning of Luminaires (Django, SpringBoot, JavaScript, MQTT)**
- Coordinated with Scientist and Research member of Philips Research innovation team to design and implement Commissioning of luminaires IoT(Internet Of Things) research project using JavaScript and **Django** framework to completely automate luminaires commissioning process with **92.3% accuracy**
- Optimized efficiency of message delivery **by 58.6%** in unreliable network by implementing publish-subscribe-based lightweight **MQTT** messaging protocol

**National Stock Exchange of India InfoTech Services Ltd**, Mumbai, India                 July 2014 - Aug 2016
**Systems Analyst**
**Centralized knowledge repository of National Stock Exchange of India (Java, Spring Boot 1.3.0, AngularJS, MySQL)**
- Conceptualized and created **Spring Boot** based knowledge sharing platform to store all trading data required for training and Interdepartmental knowledge transfer thereby broadening interdepartmental knowledge transfer rate of an organization by **32.5%**

## PROJECTS

**Intelligent book recommendation system (Hadoop 2.9.1, Scala, Weka 3.8 library)**          Sept 2018 - Dec 2018
- Predicted the ratings of new books by training different models based on historic book reviews data using Spark Scala ML library and Weka library in MapReduce by utilizing ensemble techniques

**Weather data management system (Spring Boot, Docker, NGINX, AWS EC2, SpringFox, AWS RDS)**          Jul 2017 - Aug 2017
- Designed and developed **Spring Boot MVC** micro service to model weather related ticker data of different cities in US
- Deployed this application on **AWS EC2** and added scalability by converting it into **Docker** containers and **NGINX web server**
- Utilized **SpringFox (Swagger)** to integrate documentation in the source code itself thereby making it easy to identify HTTP end points for QA and front-end developers

**Web Development (HTML, CSS, JavaScript, Bootstrap, AngularJS, NodeJS, MongoDB, ExpressJS)**          Jan 2017 - Feb 2017
- **Speaking Tree Website -** Built a Single Page responsive website maker application using **MEAN Stack**