PRATHAMESH TAJANE

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EDUCATION

Northeastern University, College of Computer & Information Science, Boston, USA   Sept 2016 - Dec 2018
Candidate for 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), C(basic), Unix Shell Scripting, Racket
Web Technologies:	HTML, CSS3, jQuery, AJAX, Bootstrap3, D3.js, NGINX, Docker, ExpressJS, NodeJS, CanvasJS, Heroku, AWS
Frameworks:	AngularJS 1.x, Spring, Spring-Boot, Django, React, Redux, Maven, Swagger(SpringFox), Hadoop
Databases:	MongoDB, SQLite 3, MySQL, Oracle, Firebase
IoT Protocols:	MQTT, Paho-MQTT, LoRa, SigFox
IDE & Tools:	Jenkins, Travis CI, IntelliJ IDEA, Eclipse, WebStrom, PyCharm, GitHub, RaspberyPi, 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 America, 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 in unreliable network by implementing publish-subscribe-based lightweight **MQTT** messaging protocol

National Stock Exchange of India InfoTech Services Ltd, Mumbai, India
Systems Analyst   July 2014 - Aug 2016
Centralized knowledge repository of National Stock Exchange of India (JavaScript, MediaWiki)
- Conceptualized and created an online knowledge repository using **JavaScript** and **MediaWiki** 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

Remote monitoring and control of battery farms using IoT technologies (Django, MQTT, Raspberry Pi)   Sept 2017 - Oct 2017
- Designed and implemented architecture to remotely manage and monitor battery farms using **Raspberry Pi 3 , ESP8266 microcontroller** and **MQTT** protocol, thereby reducing the cost of remote monitoring and control by 38%
- Integrated Amazon's Alexa service with the project by using **Amazon Lambda services** and **Alexa Cloud services**

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**