# Harshali Talele

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### **EDUCATION**

State University of New York at Buffalo, USA (3.7/4)

Dec 2020

Master of Science in Computer Science

Veermata Jijabai Technological Institute, Mumbai, India (7.2/10)

Bachelor of Technology in Electronics and Telecommunication

May 2014

# **TECHNICAL SKILLS**

Programming Skills: Java, Python, Android, MySQL, SQLite, Oracle

Web Development: JavaScript, AngularJS, ReactJS, Bootstrap CSS, HTML, CSS, ¡Query

Cloud Technologies: AWS EC2, AWS Elastic Beans deployment, Apache Solr

Others: Git, BitBucket, Jira, Trello, Keras, Tensorflow, Sci-Kit Learn, NLP

### PROFESSIONAL EXPERIENCE

Elsevier, Data Science intern

Jun 2020 - Current

- Performed classification of images as flowchart and non-flowchart by applying Machine Learning algorithms on Captions of images and text extracted from images
- Developed a Search engine web application to perform search and labeling of images based on text extracted from images
- Explored sentence aligners algorithms to align multilingual already translated sentences of the journals

#### AIRA Matrix, Senior Software Engineer

Sep 2017 – Jul 2019

- Developed a Tiled Image viewer framework to view large medical images on Slide management system on web platform. Also, developed a scalable annotation library in vanilla JavaScript
- Proposed and worked on a hybrid solution to improve performance of the web application workflow and redesigned the architecture
- Undertook the responsibility of interviews for 3 junior developer positions and initiated a code review process

### CitiusTech Healthcare IT Solutions, Software Engineer

Jun 2014 – Aug 2017

- Developed several web modules as a full-stack developer with Java as back-end and AngularJS as front-end skillset and also, explored technologies like Service discovery and microservices
- Worked with performance optimization team and implemented a few requirement specific data structure and algorithms for web applications

# **ACADEMIC PROJECTS**

Dynamo

Jan 2020 - May 2020

- Implemented simplified version of Amazon Dynamo using Android based system containing 5 AVDs
- Project comprised of three main parts:
  - Partitioning: Data to be stored was distributed among the distributed system of 5 AVDs according to Hash values of the nodes (obtained by SHA -1 algorithm)
  - o Replication: Data was replicated in other devices as well in case of a device failure
  - o Failure handling: Failures were detected and dealt without disturbance to regular behaviour
- Technology used: Android (Java), Socket Programming, FIFO-Total Ordering, Quorum Replication

## Classification of handwritten digits

Jan 2020 - May 2020

• Developed four different models - a logistic regression model using back propagation and Stochastic Gradient Descent, Random forest and Support vector machine to recognize a 28 x 28 grayscale handwritten digit image and identify as a digit among 0,1,2...,9.

## Rock, Paper, Scissor gesture recognition (MS Project)

Jan 2020 - May 2020

- Developed an application NAOqi (Operating System of NAO Robot) for NAO Robot to play Rock, Paper, Scissor game with a human
- Trained a model on the image datasets and chose one(from Keras) that resulted in best accuracy on real time images taken by NAO robot
- Developed a REST API to predict the gesture and integrated with NAO application

## **Search engine specific to Political Tweets**

Aug 2019- Nov 2019

- Built a search engine on static corpus of 400,000 plus Tweets by influential international figures
- Indexed data in Apache Solr, used PythonFlask for backend services, Angular for front end and AWS Elastic Beanstalk for deployment
- Performed sentiment analysis on the results and presented statistical information of results in graphical and charts formats

## **HONORS AND AWARDS**

Above and Beyond Award at AIRA Matrix Raise the bar Award at CitiusTech

2018