# Rahul V. Dalal

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#### **Education**

M.S., Computer Science GPA 4.0

San Jose State University, San Jose, CA Exp. May 2018

Post Graduate Diploma in Management, IT Services GPA 3.92 F.M.S., Delhi, India 2012

B.E. Electronics Telecommunication GPA 3.65
Mumbai University, Mumbai, India 2007

#### **Certifications**

**Deep Learning.Al specialization**Coursera (5 courses – 3 completed)

#### **Skills**

**Languages:** Python, Java, R, Javascript

**Data Science, Machine Learning, Deep Learning:** TensorFlow, Keras, Scikit-learn, Numpy, Supervised/ Unsupervised Learning, Object Detection, Image classification, OpenCV, Jupyter, NLP, NTLK, CUDA

Full Stack: Flask, Django, Node.js, React.js, MySQL, Spark, Kafka, NoSQL, AWS, Google Cloud, Heroku, Linux, git

## **Projects**

## Multidimensional LSTSM to predict Bitcoin price, SJSU, Fall 2017

- Designed and developed multidimensional (4 dimensions) LSTM in Keras to predict Bitcoin price
- Implemented window approach to use previous 5 days, with dropout regularization and batch normalization
- Achieved MAE of 586 over Bitcoin price range of 1000-7000

#### Real-time Object Detection, SJSU, Fall 2017

- Performed real-time object detection on live video feed using Tensorflow, Opency
- Created ensemble model combining SSD and YOLO Convolutional Neural Network(CNN) based architectures to improve mAP from 70.2 to 72.1 on partial YouTube Objects dataset

## Book Uber rides on Google Home, Uber Hackathon, Spring 2017

- Developed Google Home service to book Uber rides on android phones by voice commands
- Utilized Uber rides API to book rides and Google AI.API and NTLK for Natural Language Processing(NLP)

## **Experience**

## IBM (USA), Software Developer Intern, San Jose, CA

June 2017 – present

- Reduced customer service calls by 10% through NLP capable chatbot to answer customer queries on SPSS
- Developed NLP capabilities using Watson services and deployed the chatbot as webapp using Python Flask
- Enhancing the chatbot to parse customer service requests (tickets) and provide apt solutions from database
- Improved user experience of community support portal for SPSS using Node.js and React.js

## Nihilent Technologies, Software Consultant, India

Jan. 2014 – July 2016

 Reduced turnaround time by 75% and transformed business license issuance in Tanzania through one stop portal on Liferay

– Java

- o Lead team of 5 colleagues during the project and worked closely with the Prime Minister's Office
- Decreased time to market by 90% for leading third-party healthcare administrator in South Africa by migrating to Python Django and enhancing its features
- Increased first time right resolution by 50% through web based knowledge management platform in Python Flask for Africa's largest multimedia conglomerate; 150% incremental revenue from repeat projects
- Developed proof of concept on Bitcoin payment suite for retailers using python

# Biziga Ltd., Software Developer, India

Mar. 2013 - Jan. 2014

- Enhanced employee productivity by developing simulation based training software in Python
- Worked in agile to develop user stories and implement them

# **Additional Projects**

## Zener image classification, SJSU, Fall 2017

- Classified multiclass Zener images using CNN Tensorflow and Support Vector Machines(SVM) Scikit-Learn
- Improved classification accuracy from 91% in case of SVM to 99% using CNN

# Recommendation algorithm for Amazon, SJSU, Spring 2017

- Improved RMSE of recommendations based on 12 million amazon ratings by 5%
- Developed collaborative filtering model on Spark and utilized helpfulness score to enhance recommendations

#### Ngram viewer, Personal, Fall 2017

- Developed Python Flask web portal to view Ngram frequency distribution and correlation over given text corpus
- Used Word2vec for correlation calculation and JavaScript chart.js for interactive user experience

#### Smart checkout android app, Personal, Spring 2017

 Built transformative checkout experience at retail outlets using android app, Spring middleware, REST, Google vision api; Deployed the solution on AWS

#### Stock prediction on streaming data, SJSU, Spring 2017

- Streamed live stock quotes using Spark streaming and Kafka publish subscribe model
- Processed stock features to predict buy and sell recommendation and published it to subscribed clients
- Developed web portal using python flask for users to view stock quotes and recommendations

## Online Knapsack, SJSU, Fall 2016

- Developed online algorithm for fractional and integer Knapsack problems
- Analyzed use cases like online advertising for the algorithm

#### **Awards & Achievements**

- Best team Tech Mahindra 2008, Quarterly appreciation (Nihilent) Q3, 2014, Multiple client recognitions
- Phi Kappa Phi member by invite to top 10% in San Jose State graduates