# RISHABH KHOT

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# **EDUCATION**

Master of Science in Computer Science | Stony Brook University | GPA: 3.6/4

(Sep'19 –May'21)

Analysis of Algorithms, Artificial Intelligence, Database Systems, Data Science Fundamentals, Visualization, Probability Statistics

Teaching Assistant – Data Structures | Stony Brook University (Sep'19 –Dec'20)

Bachelor of Engineering in Computer Engineering | Mumbai University | CGPA: 8.67/10

(Jun'13 -Aug'17)

Data Structures, Algorithms, Machine Learning, Software Engineering, Computer Organization & Architecture, Mobile Computing, Operating System, Computer Networks, Cryptography & System Security, Human Computer Interaction

# **SKILLS & ABILITIES**

**Programming Skills:** Java, Spring Boot, Python, Scala, Jenkins, Selenium, TestNg, JUnit, Cucumber, Flask, HTML, CSS, JavaScript, PHP, Bootstrap, Ionic 3, D3.js, GraphQL, Kafka, Kubernetes, AWS, Docker, Tibco, WinAutomation, Tableau, ELK **Database Skills:** MySQL, Oracle SQL, PostgreSQL, JQL

#### **EXPERIENCE**

Software Developer Engineering Intern | Nomura Holdings Inc.

(Jun'20 -Aug'20)

- Implemented Performance Framework using Spring Boot for a Trade Processing Application
- Validated the trade messages using camel trading service in under 10ms and visualized the trade time using Kibana
- · Created a test framework in Zephyr using the API to mark the analyses as passed/failed before reaching a specific threshold
- Created Load/Stress testing by speed sending 100 test messages using JMS queues and thus reducing the total time around 10 secs Software Engineer | JP Morgan Chase & Co. (Jul'17 Jun'19)
  - Implemented 115 automation scripts and regression scenarios which spared nearly 800 valuable minutes of human effort per day
  - Created around 550 Test Scenarios and found more than 200 potential defects
  - Efficiently handled the automation upgrades solely by being a Subject Matter Expert
  - · Worked on Vendor MIS Application by accurately analyzing and testing nearly 2.5L data in Tableau
  - Managed a team by training them, monitoring their work, and made sure to produce teamwork
  - Implemented automated flow of the application by developing a bot using WinAutomation
  - Implemented Continuous Integration and Continuous Deployment(CI/CD) using Jenkins

#### **PROJECTS**

**Causal Link Detective Game** 

(Jan'20 - May'21)

- · Derived the exact casual model for climate change that governs the relations between variables in a multidimensional dataset
- Implemented Word2Vec to create word embeddings and thus helped in understanding the climate changes
- Developed an interface for Interactive path diagrams for causal network visualization
- Implemented design diagnostic controls, where user can examine discover them by clicking each tile colored by model scores

### **Multi Docker React Application**

(Dec'20-Jan'21)

- Created simple application using React and deployed Docker containers on Kubernetes
- Implemented CI/CD using Travis-Ci and deployed the application on AWS

# Genre Editor - A Creative AI Approach to Text Editors

(Aug'20 - Dec'20)

- Created a Web UI genre-based text editor using Flask, JavaScript, Bootstrap and used GPT2 neural network for text predictions
- Reduced the time of text predictions between 6-8 seconds by using Uber's recent work on language generation
- Conducted Heuristic Evaluations on our model and UI Design and obtained a score of 91%

# World Statistics Visualization using World Bank Data

(Jan'20 - Mav'20)

- Created a dashboard of World Bank Data on GDP, Health Expenditure, Immunization, and unemployment using Flask and D3.js
- · Used different color schemas showcasing how the country has progressed or declined in the last 15 years using map and line chart
- Created MDS chart to showcase the distribution of countries in the upcoming years by clustering them using Quadtree
- · Visualized the effect of population on the attributes using bubble chart and concluded successful observations for all countries

# Retail Sales Data Analysis for Costello's Ace Hardware Company

(Aug'19 - Dec'19)

- Analyzed each attribute of the 8GB dataset for improving the settings of the company
- Developed visualization of the attributes for a sound understanding of the sales of the business
- Created external dataset by scraping reviews from Yelp and Google which might help the company in increasing the sales by 15%
- · Implemented ARIMA and LSTM algorithms which gave the accuracy of the model around 96%

# Force for Good - Make A Wish India

(Aug'17 – Jul'18)

- Created a mobile application using Ionic 3 and Spring Boot to enable the primary user to submit 'Wish-Granting Form'
- Reduced the paper-based form which helped them to increase the wish granting process by saving their 4 working days
- · Implemented add-on modules like social media handling, saving user comments and notification about wish status
- Successfully reduced the whole TAT of the entire process through the mobile based application

### **PUBLICATIONS**

Asrani A, Khot R, Koul V (2016) Review of Steganography Techniques - Imperial Journal of Interdisciplinary Research (IJIR)