### BHARATH KUMAR BANDARU

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#### PROFESSIONAL EXPERIENCE

# Software Engineer, Fidelity Investments, Bangalore

Aug 2019 – Jul 2021

- Managed development, modification, and maintenance of over 10 **Java Spring Boot** applications for equity trading business requirements while addressing production issues.
- Migrated 5 Java and Scala applications to AWS cloud.
- Improved a **Scala** automation application by automating the limit price change on orders, reducing manual effort for traders by **1-2 hours** per day.
- Designed and developed a comprehensive suite of environment-agnostic automation test cases (40+) for REST APIs applications, validating application workflows.
- Enhanced **Java Spring Boot** application's handling of stock orders, increasing traders' efficiency by over **10%**, resulting in improved productivity and streamlined workflows for the trading team.
- Collaborated with cross-functional teams across 3 different countries to enhance the interfund feature of our software application, resulting in a performance improvement by 20%.

#### **ACADEMIC PROJECTS**

### Face Recognition Application with AWS Integration

Aug 2022 - Dec 2022

- Developed a Python application configured with AWS, achieving 95%+ face recognition accuracy, and implementing real-time visibility through AWS CloudWatch monitoring.
- Utilized AWS services like **S3**, **DynamoDB** and AWS **Lambda** for storing and retrieving information and classification results of the input videos.

#### **Interactive Visualization of Future Public Events from Social Media Data**

Aug 2022 – Dec 2022

- Developed a visualization system utilizing **D3.js** and **JavaScript**, based on the work of Isaac Cho et al., that includes an interactive dashboard with interconnected components to analyze future events and explore event relationships based on various indicative parameters.
- Utilized the Twitter API to extract tweets and applied text preprocessing techniques such as tokenization and lemmatization to normalize the data and using entity extraction techniques to extract date and location information of events from tweets.

### Multimedia Data Analysis Using Feature Extraction and Classification

Aug 2021 – Oct 2021

- Developed a Python application that extracts facial features, performs distance-based similarity analysis, and utilizes dimensionality reduction techniques like PCA, SVD, and K-means clustering for feature identification.
- Implemented indexing and classification using SVM, DT, and LSH to efficiently organize and analyze the dataset images based on the discovered latent features.

### **Enhancing Sentiment Analysis with Roberta Transformer Neural Network**

Aug 2021 – Dec 2021

- Trained and experimented with the Roberta model using Amazon, IMDB and Twitter data in **Python** improving the model's accuracy by approximately 3% for general text categorization..
- Analyzed the performance of the deep learning model by comparing it with machine learning models like Naïve Bayes and SVM on various metrics.

#### **CERTIFICATIONS**

AWS Certified Developer – Associate, Amazon Web Services, June 2023. (Link)

#### **EDUCATION**

# **Master of Science, Computer Science**

May 2023

Arizona State University, Tempe, Arizona

3.97 GPA

Coursework: **Cloud Computing**, Fundamentals of Statistical Learning, Deep Learning, Multimedia & Web Databases, Distributed Database Systems, Data Visualization.

### **Bachelor of Technology in Computer Science and Engineering**

May 2019

National Institute of Technology Karnataka, Surathkal, India

3.5 GPA

Coursework: Operating Systems, **Data Structures and Algorithms**, Design and Analysis of Algorithms, Object Oriented Programming, Database Management Systems, Data Warehouse and Data Mining, Distributed Computing.

## **TECHNICAL SKILLS**

Languages: Java, Python, C/C++, TypeScript, JavaScript, Scala, Go

Operating Systems: Linux, Windows, OS X

Design: Object Oriented Development, Service Architecture

Tools: Maven, Jira, Jenkins, Datadog

Frameworks: Angular, Flask, Spring boot, Android Studio, Apache Spark

Version Control Systems: Git, GitHub Technologies: HTML/CSS, Node.js Databases: SQL, PostgreSQL

Cloud Platform & OS: AWS, Linux, Windows