Parth Patel

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Education

San Jose State University, San Jose, CA **Dec 2019**
Master of Science, Computer Science

Brunel University London, London, UK **Aug 2018**
Bachelor of Science, Computer Science

Work Experience

Bose Corporation, Framingham, MA **Jan 2020 to Present**
Software Engineering Co-op (Mobile Applications)
Tools: *Python, Java, Kotlin, Swift, iOS, Android, Appium, TestRail, Bitrise, Git*

- Leveraged Appium to facilitate mobile testing by creating automation scripts with the required mobile capabilities.
- Gained experience in mobile testing using Appium in both iOS and Android applications using simulator and emulator.
- Performed Root Cause Analysis by isolating broken or deprecated APIs to determine if release is stable for consumers. This helped to speed-up the identification of defects in APIs and increase build release time by 30%.

Bose Corporation, Framingham, MA **June 2019 to Aug 2019**
Software Engineering Intern (DevOps)
Tools: *Python, Docker, Kubernetes, Jenkins, PostgreSQL, Ruby, PHP, JavaScript*, Git

- Deployed Docker containers to split monolithic app into microservices, increasing scalability and optimizing speed by 35%.
- Created a full-stack web application to display automated performance test results from soak testing on microservices and reducing the workload by 70%. This resulted in the team to work more efficiently rather than manual test results collection.
- Automated build and deployment using Jenkins (CI/CD) to reduce human error and speed up production processes by 20%.

Fujitsu Laboratories of Europe Ltd., London, UK **Sept 2016 to Sept 2017**
Artificial Intelligence Research Intern
Tools: *Java, REST API, Python, TensorFlow, Machine Learning, Raspberry Pi, Git*

- Trained neural network to classify crystal formations from more than ~280k images, resulting in a 78% accuracy.
- Developed RESTful web service using Raspberry Pi and ArUco marker for a smart cabinet system to count stock in real-time, resulting in an accuracy of 83% using SqueezeNet.
- Identified defects in wind turbine blades with an accuracy of 91.3% from ultrasound data using Machine Learning.
- Implemented KNN algorithm to achieve 86% reduction in workload from chip error detection.

Technical Skills

- **Programming Languages:** Java, Python, C++, C#, PHP, Swift, Kotlin
- **Soft Skills:** Agile Methodology, SASS, LESS, Adaptability, Problem Solver, Teamwork, Communication, Leadership
- **Web Technologies:** REST, React, Node.js, HTML5, CSS3, JavaScript, Ruby, Deck.gl, D3.js, Mapbox, JQuery, XML, Bootstrap
- **Frameworks:** Appium, PyTest, Spring, Kafka, Hadoop, Spark, Hive, MapR, Git, Github, JIRA, Prometheus, Grafana, Jenkins
- **Databases:** MongoDB, Cloud Firestore, MySQL, PostgreSQL, HBase
- **Cloud Technologies:** AWS EC2, Docker, Kubernetes, Google Cloud Platform, Firebase, DevOps, CI/CD
- **Game Development:** Unreal Engine 4, Unity 5, Autodesk Maya, 3DS Max, Blender, OpenFrameworks, Visual Studio

Projects

Decentralized Bidding System using Blockchain Technologies **Sept 2019 – Dec 2019**
Tools: *Python, Node.js, MetaMask, Solidity, Ganache, Git*

- Programmed a blockchain with Merkle tree-based data storage and proof-of-work mechanism in addition to Solidity smart contracts to transfer Ether currency to the highest bidder, resulting in a 100% working full-stack web application.

Cloud-based Smart Attendance Monitoring System using QR Code **Oct 2018 – Dec 2018**
Tools: *Java, Firebase, JSON, Android Studio, QR Code, Gradle, Git*

- Implemented multi-factor authentication to improve accuracy and verification of attendance by 38%.
- Integrated user experience, performance tracking, scaling and monitored incoming traffic flow of users to generate customer behavior analytics in real-time. This resulted in the improved efficiency of application interfaces by 80%.

Visualization of Current Twitter Trends using Apache Hive **Oct 2018 – Dec 2018**
Tools: *Node.js, HTML, Python, Java, JavaScript, Shell, JDBC, Deck.gl, Mapbox, Apache Hive, Git*

- Developed an application that aims to visualize and search the trending Twitter tweets using hashtags to locate the number of target users. Triggered JDBC-Hive using cron job to handle data stored in Hive and used Deck.gl for visualization of trending tweets. This resulted in the group project receiving the title of 'Best Project' amongst class of 25 students.
- Generated live Twitter data using Twitter Streaming API while filtering 56% of noisy data.

Proximity Sensitive Messenger Android Application **Sept 2015 – Mar 2016**
Tools: *REST API, Java, MySQL, JSON, Android Studio, QR Code, Git*

- Developed an android application that allowed users to interact with other users using the application within a 100-metre radius of the sender. Integrated MySQL for client-server messaging that handles both GET and POST commands for features such as send/receive messages, take or add pictures, send meetup/event invitations and alert when a friend is nearby.