MOHIT PATEL

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Experience

Software Development Engineer, Amazon Web Services – EC2 Core Platform   **July 2020 – Present**
Seattle, WA

- Currently working with AWS Usage Forecasting Org, which handles the responsibility of Service Limit Increases for millions of customers over more than 12 global regions.
- My team has onboarded several services such as EC2, EBS, EC2API, etc. to handle the throttling of customer requests.
- Functioning on a wide scoped system in context with the above Software service, that involves understanding several ranges of domain frequently, building modules, improving the efficiency of existing functionalities, widely improving the Operational proficiency for the team and downstream services by automating metrics reviewed by the team weekly.
- Designed and Implemented metrics for EC2 SLI(Service Limit Increase), Usage Rate, Compromise Contribution, Top Cumulative Limit Increases in the launched regions which are reviewed at Org level for cost analysis & fraud detection.
- Designed and developed Backfill Operation tool(through parallel processing in EMR Clusters) which reduced the human efforts by 80% and improved time performance by 70% to backfill data occasionally while onboarding any new service.
- Having ownership to increase limits programmatically for two services EC2 & EBS safely while working with other teammates, will result in providing limits to customers more based on their need, managing the rollout plan with decided Pilot regions.
- EMR Performance/Scaling improvement, reduce the time spent on finding optimal instances type/size for new Spark jobs and automatically scale the cluster depending on the input size.
- Performing investigations, when needed to find the root cause of Customer limit hitting errors and solve them within the team so that our customers could enjoy scaling up thoroughly, part of scheduled On-call rotation to resolve tickets for team.
- Implemented Unit tests, Integration tests using Mockito for added functionalities with 95% of code coverage.
- Mainly working with Scala, Java, Python, Ruby, SQL, Spark, Git, AWS – EC2, S3, Glue, Lambda, Athena, State Machines & Step Functions, IAM, CloudFormation Stack, EMR, Cloud Shell.

Software Development Engineer Intern, KBC Bank   **Feb. 2020 – May 2020**
New York, NY   **June 2019 – Aug. 2019**

- Developed a Software robot using Python, SQL, Robotics Process Automation, Uipath tool which can be used by the relationship manager and finance department for expanding the business for the bank, by collecting the 10-K filing data from EDGAR Database and automated the process.
- Assisted in the development of the internal portal using JavaScript(D3.js) which supports the finance department to analyse the real-time data for specific filing type as and when required or request the new data which will be fetched by the Software robot, which helps in improving time performance.

Education

Master's in Computer Science, New York University   **May 2020**
Coursework: Cloud Computing, Object-Oriented Programming, Big Data, Algorithms, Data Science, Data Visualization
Bachelor's in Computer Science, Gujarat Technological University   **May 2018**

Technical Skills

Programming Languages: Java, Scala, Python, C++, JavaScript   **Operating Systems:** Windows, Linux
Tools/Frameworks: Amazon Web Services, Git, Apache Spark, Tableau   **Web Technologies:** HTML, CSS, D3.js
Databases: SQL, Oracle, MongoDB

Projects

Smart Doorman System(Amazon Web Services, Python, JavaScript)

- Developed a Smart doorman system to identify the visitors using AWS Kinesis Live Video Streaming and AWS Rekognition. It also interacts with the visitor to identify their purpose of visit and sends a Real-Time SMS to the owner. It also notifies the owner if any criminal is identified in front of the door.

AI Dining Chatbot (Amazon Web Services, Python, JavaScript, JSON)

- Developed an AI-based dining chatbot using AWS Services which sends real-time messages to the Customer based on the cuisine selected by them. This chatbot provides scalability using AWS services such as Elasticsearch, DynamoDB, API Gateway, Lex Bot, SQS, Lambda functions(Python) and SNS.

Human Classification from Images (Python, Pillow, OpenCV, Neural Networks)

- This project involved neural networks to classify the images whether they contain human or not without the use of any predefined library function. Input to the Neural Network is Histogram of Gradients to classify as Human.

Blood Bank System (Java/J2EE, JSP, Web Technologies, SQL)

- Online demo website which was my academic project for the course of Object-Oriented Programming with Java, which can be used to track the blood groups within the enrolled blood banks of a region. Developed REST web service and implemented CRUD Operations.