SHREYAS SHIVASHANKAR

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Education

Northeastern University — Boston, MA, USA
Master of Science in Computer Science, GPA: 4.0 — (Expected) May 2021
Courses: Data Structures and Algorithms, Programming Design Paradigm, Machine Learning, Building Scalable Distributed Systems

National Institute of Technology Calicut — Calicut, India
BTech in Electronics and Communication Engineering — June 2013 - May 2017

Skills

Programming: Java, Python, C, C++, Go , Javascript, Scala, Ruby, bash.
Databases: MySQL, PostgreSQL, DynamoDB, Cassandra, MongoDB, Redis.
Tools and Frameworks: GIT, Docker, Flask, Scikit-learn, Pandas, Kubernetes, Openstack, Apache Kafka, Apache Spark, Hadoop, ElasticSearch, REST, Spring MVC
Operating Systems: macOS, Linux, Windows

Experience

Amazon Web Services, California — June 2020-August 2020
SDE Intern

- Designed and developed a scalable and extensible Network visualization application using Java, Python and Javascript to provide a one stop shop view of the health of AWS data centers.
- Worked on aggregating topology and traffic distribution information from large number of devices in an AWS data center.
- Reduced time spent in debugging operational issues of network devices and links by **30%**.
- Worked on Software Defined Networking architecture to extract relevant data points and reduced fetching time by **60%**.

Target Corporation, Bengaluru — July 2017-August 2019
Software Engineer

- Collaborated with senior engineers to design and build a big data platform using Spark and Hadoop to visualize real-time and forecast insights of business and technology metrics.
- Developed and trained Machine Learning models like Gradient Boost Machine to predict order volume, order revenue and page views for target.com.
- Used unsupervised anomaly detection algorithms on multi-variate time series data for fault isolation.
- Developed the back-end for a business driven UI using Java, Spring Boot, postgreSQL and Kafka as a queuing service under a micro-services based architecture. This tool drove enterprise level stability trends and actionable insights across Target Technology Services
- Engineered the unsupervised NLP analytical engine to gather the Incident descriptions and perform text mining and clustering using Affinity Propagation based on the time filters that users can select. Achieved **20%** increase in the percentage of global incidents avoided. Integrated this engine with drone, docker and Kubernetes which automated the deployment process.
- Increased Operational Efficiency and reduced Mean-Time-to-Restore by **40%** by building a web application using Go, NodeJS and ReactJS to isolate critical target stores' issues. Implemented self-sorting weighted average algorithm to bring attention to target stores with most impact.

Projects

- **Emotion Sensing Using Facial Recognition**: The project implemented the task of facial recognition and was able to extract the important features of the face. Using Machine learning, the emotion associated with the face of each image was predicted. Presented at the 2017 International Conference on Smart Technologies for Smart Nation (SmartTechCon). [Publisher: **IEEE**]
- **Alfred**: Built a financial butler that analyses all your financial transactions, income and liabilities to make a profile on your spending pattern. Using Machine Learning, it is able to tell you the impact to your financial health for making certain unusually large purchases. (**Top 10 Finalist-Disrupt San Francisco 2019 Hackathon, TechCrunch**)
- **Robot Factory:** Built a scalable and replicated distributed robot order-and-delivery service using C++ and TCP/UDP socket programming. It implements state machine replication to replicate an in-memory key-value store on multiple distributed nodes and handle primary and backup node failures.