MAULIK BHATT

GRADUATE STUDENT @ SJSU | SOFTWARE ENGINEER
INTERN @ IBM | 4.5 YEARS OF PROFESSIONAL EXPERIENCE

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EDUCATION

San Jose State Uni - May 2019 ·
MS Software Engineering- 3.7/4

Nirma University - May 2013 ·
B.Tech. Electronics & Comm- 7.8/10

SKILLS

Programming: JavaScript , Java, J2EE, Python, Shell scripting
Cloud: Kubernetes , Docker, Containers, AWS, IBM Cloud , Unix, Jenkins, travis
Database: MySQL, Mongodb , Cassandra , Redis, ElasticSearch , Solr
Web: HTML5, CSS3, microservices, REST, gRPC, git, NodeJS, NPM, AEM
Frameworks: ExpressJS , Springboot , JMeter, Junit, Kafka, Maven, Spark

EMPLOYMENT

IBM - Software Engineer Intern - San Jose **Aug. 2018 to Current**
- Developed web-app (React-Redux) where customers can order deployed instances for IBM/IBM partnered services.
- Improved cloud resource utilization of IBM ICP4Data by dynamic allocation-recovery of Kubernetes cluster from pool.
- Automated entire deployment and recovery process with Travis CI/CD pipeline.
- Reduced network traffic and latency by implementing WebSockets to send real time updates.
- Improved security and authorization process by integrating SSO using W3ID OpenId.

Amdocs - Software Developer - Pune **Apr. 2015 to July 2017**
- Reduced inter-dependency b/w products by building standalone widgets (Angular) with associated microservice.
- Developed RESTful APIs using Java, JAX-RS and Spring to support mobile plan and device purchase flow.

Cognizant Technology Solutions - Programmer Analyst - Pune **Sept. 2013 to Apr. 2015**
- Improved user experience with responsive web pages and hybrid Mobile App using HTML5, CSS3, JQuery mobile.

PROJECTS

Project Assistant - Intelligent Traffic intersection - Cisco (Kubernetes, Docker, Jenkins)
- Deploying and managing infrastructure for distributed fog/edge nodes over traffic intersections.
- Creating simple Kubernetes fog cluster and CI/CD pipeline using Jenkins that pulls code from GitHub repository.

Distributed data store (Python, gRPC, Protobuf, RAFT)
- Developed multi-cluster distributed data store to ingest 12TB of IOT data with replication factor 2 for making fail safe.
- Implemented distributed consensus using RAFT and used gRPC with protobuf for inter cluster communication.
- Increased data delivery efficiency using bloom filters - murmur hash and memcache.

Data Pipeline from Flume-> Kafka-> Spark-> Solr (Docker, Shell scripting)
- Developed pipeline that consumes enormous data using flume, passes it to Kafka-Spark and finally indexes it in Solr.
- Automated deployment process with self-test fail safe shell scripts and docker containers.

Distributed File Storage System (MERN - MongoExpressReactNode)
- Developed distributed file storage system coupled with KAFKA messaging queue, making it a 4-tier architecture.
- Improved app response time by ~12% for 10,000 concurrent file uploads with custom written connection pooling.

Image Classification using CNN (Python, CNN, Jupyter Notebook, Tensorflow, Keras)
- Implemented binary image classification algorithm using 3 convolution layers with a ReLU activation and max-pooling.
- Increased accuracy to 84% using fined tuned VGG model with 100 epoc over AWS.

ACHIEVEMENT

IBM Intern Hackathon Winner - Veracity - (BlockChain, Flask)
- A Blockchain based application which helps organizations and universities to verify credentials easily.

OrganChain – Silicon Valley Innovation Challenge (SVIC) finalist - (BlockChain)
- Provided solution for organ donation and procurement using permissioned blockchain Hayperledger fabric.

GE Digital CSU Challenge – (Predix as PaaS)
- Built a rapid action app to ensure public safety using live streaming of data from GE's IoT sensors in San Diego.