

# Maulik Bhatt

Software Development Engineer || @ Amazon/AWS  
Master of Science in Software Engineering @ SJSU  
7+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:** AWS, Docker, Containers, Kubernetes, IBM Cloud , Unix, Jenkins  
**Database:** DynamoDB, MongoDB , MySQL, Redis, ElasticSearch  
**Web:** HTML5, CSS3, microservices, REST, git, NodeJS, NPM  
**Frameworks:** Springboot , Google Guice, Junit, Kafka, Maven

## EMPLOYMENT

Amazon/AWS - Software Engineer || - San Jose

June 2019 to Current

- Worked extensively on reinforcement learning based scalable solution called AWS DeepRacer.
- Developed React-Redux based AWS web-apps using Polaris component library.
- Created racing leaderboards feature where customers can compete using reinforcement models.
- Developed synchronous code workflows using AWS step-function and Lambda to support ML trainings.
- Implemented metering and billing logic for DeepRacer storage paid tier.
- Automated reporting metrics generation and service audit logic.

IBM - Software Engineer Intern - San Jose

Aug. 2018 to May 2019

- 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.
- Reduced network traffic and latency by implementing WebSockets to send real time updates.

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

Fireworks - Live racing (AWS IVS+KVS, Java, S3, SQS)

- Worked on feature where two reinforcement learning models race real time.
- Designed distributed system where live stream can accommodate up to ~100000 live views
- Prepared solution for allocating rewards to racer based wins and points gained.

Billing audit (AWS Lambda, Cloudwatch)

- Designed metering and billing audit solution for ML training and storage resources for each paid tier customer.
- Automated audit execution of daily ~15k trainings using AWS Lambda and alerting using AWS Cloudwatch.

Student DeepRacer (AWS CDK, Pipelines, CodeDeploy, Polaris)

- Worked on service launch of student DeepRacer customized for young students to early start ML journey.
- Developed Polaris library based web-app to support reinforcement learning model trainings.

Reinforcement learning experiments (ML, Docker, AWS, Python)

- Experimented with possible different formats for reinforcement learning(RL) based car racing.
- Worked on format for "head to head" where two RL models compete side by side on same track at same time.

Service throttling (Traffic shaping, Rate limiting)

- Implemented traffic shaping solution for DeepRacer using account level buckets and CPU usage to drop excess traffic.
- Introduced intelligent ways to rate limit accounts with offensive traffic pattern.

## ACHIEVEMENT

Amazon - Recognition for customer obsession leadership principal

- Was recognized for customer obsession LP for going above and beyond for satisfying customer requirements and delivering quality product.

IBM - Intern Hackathon Winner - Veracity - (Blockchain, Flask)

- A Blockchain based application which helps organizations and universities to verify credentials easily.