

# DISHA PATEL

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## EDUCATION

### Santa Clara University

September 2022 - March 2024

*Master of Science in Computer Science & Engineering; GPA: 3.82/4.0*

*Santa Clara, CA*

*Coursework: Distributed Systems, Design & Analysis of Algorithms, Cloud Computing, Solutions and Architecture Cloud*

### College of Engineering Pune

August 2016 - May 2020

*Bachelor of Technology in Information Technology & Minors in Financial Engineering*

*Pune, India*

*Coursework: Data Structures & Algorithms, Operating Systems, Database Management Systems, Data Mining*

## WORK EXPERIENCE

### Citi

August 2020 - August 2022

#### Software Developer

*Pune, India*

- Developed several technical functionalities for TRON (a SpringBoot microservice framework) like integration of certificates from VENAfi, building docker base images for common functionalities, etc.
- Implemented support for Java based web services (gRPC, HTTP, E-mail) utilizing Docker, Kubernetes, Gradle, Git / GitHub, Jenkins and the Atlassian collaboration suite.
- Built and optimized high-performance Rsocket SpringBoot microservices for server-client communication in low latency environments, utilizing WebSocket messaging protocol for seamless message streaming.
- Enhancing TRON, with all the above mentioned functionalities, led to ease in deployment of any microservice over the Amazon ECS within few hours.
- Designed and developed the entire backend system of Broker Recon Project from scratch which automated the reconciliation of confirmation of trades sent by Brokers against the trades booked in the Openlink System of CITI.
- Broker Recon Project, which was a failure in 2017, on automation gave 80% success rate for OTC Trades and 70% success rate for the Exchange Trades bringing down the reconciliation time from 8-10 hours to approximately 2 hours.
- Automated the release process for the Straight Through Processing Application using UrbanCodeDeploy and ServiceNow which reduced the deployment time of the application from 5-6 hours to approximately 20 minutes.

### Barclays

May 2019 - July 2019

#### Software Developer Intern

*Pune, India*

- Transformed the employee management process, which was done manually using the excel sheets, by developing an utility tool using Java and MS Access as database.
- Completed a White Paper on Credit Scoring using Data Mining Techniques and implemented it using WEKA Tool.
- Self taught the Salesforce platform and earned 5 badges and 4900 points & hence achieving rank of EXPLORER in the Salesforce Trailhead.

## TECHNICAL SKILLS

**Programming Languages:** Java, C++, Python, C, SQL, Powershell Scripting

**Tools:** Kubernetes, Docker, Openshift, Jenkins, Amazon ECS, MongoDB, MySQL, IBM UrbanCodeDeploy, Confluence, GIT, JIRA, WEKA

**Framework / Libraries:** SpringBoot, Microservices, Reactive Programming, Spring Webflux, gRPC, Protocol Buffers, Apache Hadoop, Apache Spark, Machine Learning, Data Mining, Prometheus, Grafana

## PROJECTS

### SmartNIC Powered Blockchain Infrastructure | *Blockchain, Network Optimization*

November 2022 – March 2023

- Developed the new infrastructure for the blockchain application by multi-threading the Proof of Work which utilized all the cores of SmartNIC as well as leveraged its advantages of offloading and edge processing.

### Auto - tuning of Hadoop and Spark Parameters | *Hadoop, Spark, Machine Learning*

August 2019 – May 2020

- Automatically tuned the parameters, selected by feature selection algorithm, and investigated the impact of those parameters on the performance of the job.

## PUBLICATIONS

Auto - tuning of Hadoop and Spark Parameters published with International Journal of Engineering Trends and Technology (IJETT): [arXiv:2111.02604](https://arxiv.org/abs/2111.02604) [cs.DC]

## AWARDS & CERTIFICATIONS

- Received one CITI GOLD, one CITI SILVER, two CITI BRONZE & CITI Applause Awards.
- Amazon Web Services Certified Cloud Practitioner
- Secured 4th place all over India in the course of Randomized Algorithms conducted by IIT Guwahati.
- Received Scholarship by Reliance Foundation for undergraduate studies.