

Disha Shailesh Patel

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EDUCATION

Master of Science in Computer Science

Santa Clara University

September 2022 - March 2024

Bachelor of Technology in Information Technology

College of Engineering Pune

- Minors: Financial Engineering

August 2016 - May 2020

TECHNICAL SKILLS

Languages: Java, Kotlin, C++, Python, C, SQL, HTML, CSS, JavaScript, Powershell Scripting

Developer Tools: GIT, Jenkins, Docker, Kubernetes, Red Hat Openshift, Spinnaker, Amazon Web Services, Google Cloud Platform, Terraform, Grafana, Postman, IBM UrbanCodeDeploy, Confluence, JIRA, IntelliJ

Framework & Libraries: SpringBoot, Microservices, REST API, Async API, Reactive Programming, Spring Webflux, gRPC, Protocol Buffers, Prometheus, Open Telemetry, Elasticsearch, MongoDB, MySQL, Swagger, Hadoop, Maven, Gradle, JUnit, JIRA, FedML

WORK EXPERIENCE

Graduate Student Researcher | Hewlett Packard Enterprise Labs

September 2023 - Present

- Investigated and integrated various hardware configurations to evaluate their impact on security and privacy in federated learning settings.
- Evaluated and integrated homomorphic encryption libraries to identify the most efficient solution meeting both performance and security requirements.
- Experimented with communication protocols like MQTT, gRPC to enhance the overall performance between federated clients and servers.

Software Engineer Intern | LiveRamp

June 2023 - September 2023

- Designed and implemented an asset activity history module using SpringBoot, Elasticsearch and Google Pub/Sub channels, capturing 30 distinct internal and external events across 10 assets.
- Utilized CI/CD tools for the seamless deployment of the asset activity history module, resulting in a remarkable 70% enhancement in data tracking capabilities.
- Deployed OpenTelemetry agents via Terraform on 6 Kubernetes clusters, enabling the collection of over 20 critical application performance metrics and visualizing them using Grafana Dashboards, fostering intuitive data interpretation.

Software Developer | Citi

August 2020 - August 2022

- Developed several technical functionalities for a SpringBoot microservice framework using gRPC, HTTP, Docker, resulting in streamlined deployment of microservices on Amazon EC2 and an impressive 80% reduction in deployment time.
- Built and optimized high-performance Rsocket SpringBoot microservices for server-client communication in low latency environments, utilizing WebSocket messaging protocol for seamless message streaming.
- Designed and developed the entire backend system of Broker Recon Project from scratch, using Java based Microservices and Spring Data JPA, which reduced the reconciliation time from 8-10 hours to 2 hours.
- Broker Recon Project, which was a failure in 2017, on automation gave 80% and 70% success rate for OTC Trades and Exchange Trades respectively.

Software Developer Intern | Barclays

May 2019 - July 2019

- Transformed the employee management process by developing an utility tool using Java and MS Access as a 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.

PROJECTS AND PUBLICATIONS

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. [\[Link\]](#)

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

August 2019 - May 2020

- Automatically tuned the parameters, selected by feature selection algorithm, using hyperparameter tuning and investigated the impact of those parameters on the performance of the big data job. [\[Link\]](#)