

Rushil Shah

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EDUCATION

Master of Science in Software Engineering | San Jose State University, California - **GPA: 3.72** **Aug 2023**
Bachelor of Technology in ICT | Ahmedabad University, India - **GPA: 3.58** **May 2021**
Relevant Works: Data Structures and Algorithms, Object-Oriented Programming, Cloud and Software Enterprise platforms

SKILLS

Languages: JavaScript, TypeScript, Java, Ruby, Python, SQL, Elixir, C/C++, HTML, CSS, Linux
Technologies: NodeJS, React, GRPC, Microservices, REST, GraphQL, Spring, GIT, AWS(SQS, SNS), Kafka, CI/CD
Soft Skills: Effective Communication, Team Collaboration, Leadership

PROFESSIONAL EXPERIENCE

SOFTWARE ENGINEERING INTERN (Full-stack) | PROCURE NETWORKS **Sep 2022 - Present**

- Reduced latency by **22-25%** by creating a **lookup aggregator** for optimized search across inventory using a **NoSQL** cache database backend, custom hooks with **React Typescript**, and **GraphQL**.
- Attained a **40%** increase in search and access speed across all products by engineering data pipelines to normalize input data structures from different vendors into one standard mapping using **hashmaps**, and stored them in **Elasticsearch**
- Engineered **Node.js** & **gRPC** solution in a **Microservice** architecture with **Kafka** & **MongoDB** for real-time sorting of NoSQL documents based on exterior fields, ensuring real-time synchronized updates.

SOFTWARE ENGINEERING INTERN | INFLUXDATA ([General Marketplace Simulator](#)) **Jun 2022 - Aug 2022**

- Designed a **Queuing and Notification service** to send user-registration messages to local queues, running in a Docker container. This initiative led to a local simulator of **AWS Marketplace** responsible for onboarding **70%** of users
- Conceptualized the architecture in **Elixir** to send notifications dynamically and poll local queues at regular intervals, thus duplicating **AWS SNS** and **SQS** services locally, by setting up a local queue environment using **RabbitMQ**

SOFTWARE DEVELOPER PRODUCT INTERN (Full-stack) | SHIPMNTS **Dec 2020 - Jun 2021**

- Implemented **Subscription based APIs** to deliver **live** tracking data of containers, by using a **queue-based backend** architecture to delegate large asynchronous tasks of data fetching to several queues improving performance by **30%**
- Programmed **Cron Jobs** in **Nest Typescript** and **React** to asynchronously fetch and update container data at regular intervals, resulting in **50%** less API consumption by adjusting time intervals at runtime based on previous tracking data
- Revamped user convenience by developing a Gmail Plugin using **JavaScript** and **REST** to allow file uploads and job initiation from the Gmail inbox, and Google scope rules to access **metadata** including files attached, subject, and body.

WEB DEVELOPER INTERN (Full-stack) | TAASHA TECHNOLOGIES **Jun 2020 - Sep 2020**

- Built a search box using **Java Spring Boot** and **Angular TypeScript** in an e-commerce website, giving search and access to more than **20,000** products stored in a centralized inventory of **relational database**
- Orchestrated database design to optimize search filters to improve latency by **30%** by distributing products in categories and sub-categories, giving a tree-like data structure, making data less redundant, and writing efficient **SQL** queries

PROJECTS

User Authentication Module ([Link](#)): React | NodeJS | React Hooks | Javascript **Nov 2022 - Dec 2022**

- Developed and released **open-source React** components for developers to inject Login, Signup, and Protected URL services into any project, reducing development time by **20-25%**

Autonomous Rental System: Mongodb | React | NodeJS | Carla Simulation | Python **Sep 2021 - Nov 2021**

- Developed a **React/Node ExpressJS** web portal for renting autonomous cars using Carla simulator on **AWS EC2**.
- Employed database row-level multi-tenancy architecture to enable horizontal scalability for users and roles using **AWS RDS**. Enabled sharing of a single application instance among multiple tenants, resulting in increased efficiency

Student Management System: Spring Boot | Angular | Typescript | Java **Mar 2020 - May 2020**

- Created a platform using **Java** for students to enroll in courses and for teachers to offer classes, evaluate, and grade students
- Utilized **Spring Boot** annotations to implement and execute SQL queries, controllers to map API requests from clients, and introduced **dependency injection** and service-based principles for data exchange between components