

# SWAPNIL SHARMA

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## Summary

Full-stack software engineer and system architect with **4+ years** of experience in **Golang, Node, React, AWS Cloud** and **Agile methodologies**. Known for innovation and customer-centric solutions, with a strong advocacy for accessibility and tech for good. Skilled in leading cross-functional teams, achieving objectives, and optimizing software. Active community organizer, conference participant, and open-source contributor.

## Work Experience

**CaratLane ( A TATA Product ) | Bengaluru, Karnataka**  
**Senior Software Engineer** July 2022 – Current

### Projects

**@caratlane/sqc Package Development** <https://www.npmjs.com/package/@caratlane/sqc>

- Open Source Package Development:** Single-handedly developed the [@caratlane/sqc](#) (Sequelize Query Commenter) open-source package to enhance database query visibility and system maintainability. The package enables seamless annotation of SQL queries when using the Sequelize ORM with Node.js, leveraging hooks and middlewares to dynamically add meaningful comments without modifying underlying Sequelize code. This innovation improved query debugging, and ensured better handling of increased traffic.

**Pricing Engine & Data Sync Optimization** [link](#)

- Pricing Engine:** Led the team in architecting and implementing a pricing engine for calculating product prices and generating barcodes. Reduced execution time from **2 hours to 30 minutes** by leveraging goroutines and channels. Implemented a caching layer to minimize database calls.
- ERP Data Sync:** Designed and optimized system architecture for syncing data from the ERP system, leading to a significant reduction in execution time and improved processing efficiency.
- Go Worker Pool for Inventory Migration:** Developed a worker pool package in Go to optimize cross-account inventory migration. Reduced execution time from **13 minutes to just 1 minute** by improving task parallelization and resource management

**Centralized Communication Preferences Management** [link](#)

- DND & Email Preferences System:** Designed and implemented a centralized "Do Not Disturb" (DND) and email preference management system for CaratLane. Consolidated customer communication preferences from multiple databases and vendor systems into a single interface.
- Secure Unsubscribe:** Developed secure unsubscribe functionality using hashed tokens and an API-driven process for updating user opt-in statuses, ensuring seamless integration and efficient handling of customer preferences..

**Customer Engagement Platform**

- Built a behavioral pop-up system for the CaratLane website with a team of three, handling up to **1.5M daily visitors**.
- Implemented user segmentation (e.g., first-time vs. returning users) and A/B testing to optimize engagement.
- Utilized technologies including **Kinesis, RabbitMQ, RudderStack, AWS EMR, Java (backend), ReactJS, and WebSockets** for real-time, scalable solutions.

**Serverless Product Image Architecture**

- AWS S3 & Lambda Optimization:** Optimized the product image architecture by implementing a serverless solution using AWS S3 and Lambda. This reduced storage costs by 80% and decreased image upload time by 20%.
- Developed custom Node.js Lambda functions for one-time unzipping and image resizing using the Sharp package.

**Accenture | Pune, Maharashtra**  
**Software Engineer** Nov 2020 – July 2022

### Projects

**Oracle Fusion Services Development and Deployment**

- Worked on Oracle Financials Cloud, automating financial transactions, and integrating with external accounting systems. Also contributed to Oracle Procurement Cloud by optimizing supplier management workflows, automating purchase order processes.
- Additionally, worked with both RESTful and SOAP APIs within Oracle Fusion to integrate with external systems and custom services, leveraging Service-Oriented Architecture (SOA).
- Deployed these services on Kubernetes (K8s), creating Docker containers for microservices..

**Automated Log Reporting System** (Internal Tool)

- Built an automated script to aggregate logs from multiple applications, clusters, and servers, utilizing APIs and tools for seamless data collection. Generated detailed performance reports from the processed data, providing actionable insights.
- Additionally, implemented a frontend interface using react to visualize these reports, including a live log view feature tied to user sessions, enabling real-time log monitoring. This internal tool significantly improved operational efficiency and streamlined data analysis for the teams.

## Technical Skills

**Programming Languages:** Golang, JavaScript/ES6/ES2017, Typescript, Java SE, WebGL, XHTML, XML  
**Frameworks:** Sarama, Gorilla mux, ReactJS, Redux, Gin, XORM, AJAX, Spring ( Boot, REST, MVC, JPA ), Webpack, Grunt  
**Hands-on Experience:**

- AWS (Compute, Storage, Network & Content Delivery), RabbitMQ, Kafka, Amazon Kinesis, git, npm,
- EKS, ECS, Event Bridge, AWS MSK
- GitHub, Netlify, Postman, SOAP UI, Dynatrace, Splunk, NGINX
- Docker, Kubernetes, Terraform, Istio
- CLI Tooling, Elasticsearch

Experience with various database engine technologies such as **Oracle, MySQL, PostgreSQL, MongoDB**  
Experience developing wireframes, UX flows, mock-ups, and prototypes using Adobe XD  
Experienced with Go-Routines, channels, workgroup, MUTEX

## Certifications

Accenture Certified MERN Stack Developer  
Accenture Certified Spring Boot Developer  
Accenture Java SE Certificate

## Education

**Bachelor of Engineering** Jul 2020  
72.2% (7.6 CGPA)  
Madhav Institute of Technology and Science, Gwalior

## Publications

**GRUB: A Worker Pool in Golang**

<https://pkg.go.dev/github.com/maybeswapnil/grub>

**Product Image Serverless Architecture Using Amazon S3**

<https://inside.caratlane.com/product-image-serverless-architecture-using-amazon-s3-8b00c6ae4fb7>

**Sequelize Query Commenter**

<https://inside.caratlane.com/sequelize-query-commenter-b9829f92c21>

**@caratlane/sqc**

<https://www.npmjs.com/package/@caratlane/sqc>