

Sopan Mittal

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Senior Backend Engineer | Node.js | AWS

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Summary

- **7 years of experience** in designing and developing **scalable, high-performance microservices** and **event-driven architectures**.
- Expertise in **Node.js, Express, Koa, Sequelize**, and RESTful API development.
- Strong background in **MongoDB, MySQL, and PostgreSQL**, with experience implementing **Row-Level Security (RLS)** for multi-tenancy and **lexical ordering** for optimized ranking.
- Extensive hands-on experience with **AWS services**, including **Lambda, S3, DynamoDB, SQS, SNS and IAM**, ensuring **cost-efficient and secure cloud solutions**.
- Developed and optimized **File Conversion Service**, with **cost optimization**.
- Implemented **circuit breaker patterns** to enhance microservice resilience and built **orchestration layers from scratch** for seamless service communication.
- Proven ability to **improve system efficiency, reduce database load**, and **enhance application security and scalability**.

Skills

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|--------------------------------|--|
| • Programming languages | JavaScript, Typescript |
| • Frameworks | NodeJS, Express, Koa, Swagger, OpenAPI |
| • AWS | Lambda, EC2, S3, CloudFront, SQS, SNS, API Gateway |
| • Databases | MySQL, MongoDB, Postgresql |
| • Version Control | Git, Bitbucket |
| • CI CD | Kubernetes, Docker, Github Actions |

Work Experience

ConveGenius **Backend Developer(Tech Lead)** **Jan'2025 – Present**

Description: ConveGenius is a leading AI and edtech company in India, specializing in conversational AI, data-driven platforms, and scalable tech solutions for education, government, and enterprise sectors.

Responsibilities:

- Worked on high-scale, government and enterprise-facing projects impacting millions of users.
- Built systems that needed to handle unreliable user devices (low-end phones, slow networks) — so optimization and fault-tolerance were crucial.
- Experienced in developing multi-tenant systems with row-level security, logical isolation, and large-scale data processing.
- Worked in an agile, fast-paced environment with a strong focus on building MVPs quickly and iteratively improving products.
- Developed solutions for both government bodies and private enterprises — balancing regulatory compliance with rapid innovation
- Helped improve system efficiency by 15%.
- Enabled a government rollout to 20 million students.

Technology Stack: NodeJS, Express, JavaScript, middlewares, Postgres, AWS, Lambda, Git, GitHub Actions, Kafka, redis, DynamoDB, SQS

Simplr

Backend Developer(SSDE)

Sep'2023 – Nov'2024

Description: Simplr is a modern intranet and employee engagement platform, serving 1M+ users across 1,200+ U.S. companies, enhancing workplace communication and collaboration.

Responsibilities:

- Ensures 24x7 platform availability and quality assurance to maintain seamless user experiences.
- Collaborates with cross-functional teams to streamline development through effective communication.
- Led the design and development of a serverless file conversion system on AWS Lambda, managing a cross-functional team of 10 and driving key technical decisions to optimize performance, scalability, and security.
- Implemented Row-Level Security (RLS) for multi-tenancy, ensuring secure and logical tenant data isolation at the database layer. Enhanced data security by restricting access at the DB level, preventing unauthorized data exposure.
- Designed logical data isolation within tenants to serve distinct segments while maintaining tenant integrity.
- Designed and implemented highly efficient authentication and authorization middleware for user management, ensuring secure access control across services.
- Integrated lexical ordering for optimized item ranking, improving database efficiency and reducing load, which led to a 6% decrease in response time.
- Designed and implemented a scalable file conversion system using AWS Lambda with an event-driven architecture powered by SQS-triggered functions. Leveraged Dockerized GroupDocs Conversion on EC2, ensuring security, monitoring, and optimization, resulting in an 11% reduction in overall AWS costs.
- Developed comprehensive test cases for robust error handling, ensuring high-quality code and reliable system performance
- Swiftly addressed and resolved customer-reported issues, adhering to defined SLAs for timely deployment.
- Worked on Event Driven Architecture

Technology Stack: NodeJS, Express, JavaScript, middlewares, TypeScript, npm, Postgres, AWS, Lambda, Harness, Git, YAML, GitHub Actions, Kafka, Kubernetes, Docker, SQS

ZopSmart

Backend Developer(SSDE)

Aug'2020 – Sep'2023

Description: ZopSmart is a leading retail technology company providing end-to-end solutions for e-commerce and omnichannel retail. Worked on projects for Kroger, the second-largest retail chain in the U.S., contributing to the development and optimization of their digital commerce platform

Responsibilities:

- Develop highly scalable consumer layer APIs to the web, mobile and native platforms.
- Designed and developed an orchestration layer from scratch, enabling seamless integration between services, improving system scalability, and enhancing fault tolerance. This reduced latency, optimized resource utilization, and streamlined data flow across microservices.
- Implement and manage payment gateway for a high-scale e-commerce platform.
- Develop and maintain consumer layer APIs for saving and managing payment cards.
- Refactor the GitLab deployment job to use GitHub Actions for Continuous Integration and Continuous Deployment.
- Designed and implemented highly efficient Logging middleware for Logging Requests, Error Logging and Performance Monitoring
- Integrated a circuit breaker pattern in microservices to enhance system resilience and fault tolerance. This prevented cascading failures, improved service availability, and optimized performance by efficiently handling timeouts and failures in dependent services.

Technology Stack: NodeJS, Koa, JavaScript middleware, TypeScript, npm, React, MongoDB, AWS, Harness, Git, YAML, GitHub Actions,

IndiQube

Backend Developer

May 2019 – Aug'2020

Description: MiQube HelpDesk is a web portal used by IndiQube to manage its day-to-day business operations related to workspaces. It is also the admin panel for the MiQube mobile application used by the employees of organizations occupying IndiQube workspaces. The MiQube HelpDesk also helps tenant companies of IndiQube to manage their business with IndiQube and their workspaces such as providing access to an employee or a visitor and making a complaint or a service request with IndiQube. The MiQube mobile application provides users with basic services, such as booking a meeting room, ordering food items from the cafeteria, and making online payments.

Responsibilities:

- Work closely with business users, developers, and testers during the entire Software Development Life Cycle (SDLC).
- Analyze the requirements & determine the workflow of the project.
- Develop APIs using microservice architecture in NodeJS using the Swagger framework.
- Design NoSQL MongoDB Database for the application to meet the requirements.
- Continuously improve the efficiency of microservices.
- Implement Redis to support communication between microservices and data caching.

Technology Stack: NodeJS, Express, JavaScript, Swagger, npm, React, MongoDB, AWS, Redis, Git, HTML, CSS, Bootstrap

ThoughtClan Technologies

Backend Developer

Jun' 2018 – May 2019

Client- Brief: ThoughtClan technologies is an IT services company focusing on various sectors and bridging the gap between technology and business. They work in various domains like Data Science, Multi-channel E-Commerce Applications, Business Intelligence, and Web-based and Mobile Application Development.

- Design and develop specific business components of the e-commerce application.
- Understand the project & determine the coding concepts using OOPS concept, Spring & MVC.
- Worked on relational database MySQL.
- Provide full life cycle support to the client from initial client interaction and requirement analysis through coding, debugging, implementation and integration.
- Developed different modules of the application like – email retry cron job, automatically exporting list of physical gift cards ordered into CSV and sent it to SFTP server, validations for input fields from backend as well as front end,
- Worked on Google Search Engine Optimization by implementing:
An automated crawler that explores all the pages of the website including the dynamically created product and category pages and creates a sitemap.xml file resulting in sending it to Google search console, implementing Open Graph protocol.

Technology stack: Java, Spring, SAP Hybris, MySQL, GCP, JSP, GIT, HTML, Javascript, CSS, Bootstrap

Education

Bachelor of Technology(Hons.) in Computer Science & Engineering
Lovely Professional University
CGPA: 7.65/10 (2018)