SHUBHAM MUTHREJA

Senior Software Developer

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PROFESSIONAL SUMMARY

I am a Full Stack Developer and IoT enthusiast with over 5 years of experience designing and optimizing scalable systems, proficient in TypeScript, React, MongoDB, AWS services, Python, and Java. I adapt quickly to new technologies and have delivered impactful solutions across IoT, water management, and electric vehicle infrastructure, specializing in end-to-end product development and cloud solutions. Achieving performance improvements, cost optimizations, and enhanced system reliability, I thrive on solving complex technical problems—from migrating systems from legacy codebases to planning and building complete software systems.

EXPERIENCE

Feb'23 - Feb'25
Digital Paani (Digital EcoInnovision Private Limited)
Engineering Manager

- Led the enhancement of Digital Paani's IoT platform, introducing advanced features like bi-directional plant control, automated reporting systems, and configurable alert workflows to streamline water treatment facility operations.
- Optimized performance for real-time data ingestion pipelines handling millions of records per day using Java and AWS Lambda, achieving a 30% improvement in latency.
- Spearheaded development of ML-based solutions, including a sludge settlement detection sensor using image processing and machine learning, improving operational insights for clients.
- Implemented sophisticated dashboards with time-series data aggregation, enabling clients to visualize plant performance metrics at granular levels such as minutes, hours, and days.
- Actively contributed to backend architecture optimizations, ensuring scalability and fault tolerance using AWS services such as Lambda, IoT Core, SQS, and CloudWatch.
- Set up CI/CD pipelines and project management tools like GitHub and Jira, improving development efficiency and team collaboration.

Jun'22 - Feb'23
Digital Paani (Digital EcoInnovision Private Limited)
Senior Software Developer

- Led the development and execution of a comprehensive migration strategy to transition legacy systems to cloud services, significantly enhancing security, reliability, and scalability.
- Designed and built over 70% of the IoT system from the ground up, with features including Real-time fully customizable Dashboards and Live Visualization (SCADA-like system) with Data Streaming using SSE
- Developed predictive models for alert and task-generating systems, providing operators with actionable insights for optimising water treatment processes.
- Migrated the system to a serverless architecture on AWS, utilizing Java-based Lambda functions for efficient data processing.
- Refactored legacy codebases to improve security, performance, and maintainability, adopting serverless computing and reducing infrastructure complexity.
- Played a pivotal role in expanding the development team, recruiting new members, and mentoring junior developers, contributing to the rapid growth of the team.

EDUCATION

2015 - 2019 | SRM University
Bachelor of Technology

Major in software engineering

PROFESSIONAL LINKS

in
www.linkedin.com/in/shubhammuthreja

https://github.com/ShubhamMuthreja87

SKILLS

- Project Management
- Stakeholder communication
- Interdisciplinary collaboration
- Technology integration
- Prioritization
- Engineering design
- System Design
- Architecture Planning

Feb'21 - May'22
BraynixAI

Head of software development

- Collaborated with clients to revamp their websites, focusing on modern, responsive designs and improved user experience using React.js/Next.js for the frontend and NodeJS, Express based backend for core functionality.
- Conducted comprehensive SEO optimization for client websites, implementing best practices in meta-tagging, structured data, and site performance improvements to boost search engine rankings and traffic.
- Directed two cross-functional development teams within an Agile Scrum framework, managing daily stand-ups, sprint planning, and retrospectives to maintain team productivity and clear communication.
- Deployed projects on AWS cloud platforms, leveraging services like S3, CloudFront, and Lambda to ensure fast, secure, and cost-effective delivery of web applications.

Mar'21 - Feb'22
SFC Transport Pvt. Ltd.

Consultant (Freelance)

- Digitized the business process and prevented losses of about 16 lakhs per year by setting up checks and interventions in various aspects of business functioning, formalizing the business processes.
- Designed and developed a system with multiple dashboards for operations, marketing, accounts, HR, administration, franchises, distributors, retailers, drivers, delivery agents, inventory managers, and corresponding mobile applications.
- Designed and developed the systems adhering to Industry standards and contributed to the development and managed the development process of the proposed system.

Aug'19 - Nov'20
Numocity Technologies

Software Engineer

- Contributed to the development of charging and battery swap solutions for various vehicle brands by creating native and hybrid mobile applications with modern user interfaces along with Java-based APIs and backend services with Spring Boot.
- Researched and implemented various IOT protocols in the product and developed solutions with MQTT and LoRaWAN.
- Researched and developed a solution for communicating with the IoT device in the charger using Bluetooth and Wi-Fi, resulting in better and more responsive workflow in areas with weak network coverage.

Projects

- Chatbot Integrated with Emotion Detection (Sep'18 – Apr'19)
- NGO Web App for Inventory Management and Administrative Tasks (Aug'18 – Nov'18)
- Raspberry Pi Powered Android Controlled Car for Sensing Temperature and Humidity (Aug'18 – Nov'18)
- Python Project for Collecting Details and Data of Devices Connected to Wi-Fi (Aug'17 –Nov'17)
- DBMS Project for the Hospital Management System (Aug'17 – Nov'17)

PROGRAMMING LANGUAGES

- Java
- TypeScript
- JavaScript
- Python
- SQL
- Dart
- SQL

LIBRARIES / FRAMEWORKS

- NextJS
- ReactJS
- ExpressJS
- Flask
- Spring Boot

PLATFORMS / TOOLS

- AWS
- VSCode
- MongoDB
- Android SDK
- Docker

LANGUAGES

- English
- Hindi