

# Shubham Kumar

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## SUMMARY

Experienced Software Engineer with 3+ years of expertise in designing and optimizing scalable backend systems and microservices architectures. Seeking an SDE 2 role to leverage my technical skills and leadership experience in delivering high-impact software solutions.

## PROFESSIONAL EXPERIENCE

### Scale AI

San Francisco, California (Remote)

Software Engineer (Contract)

03/2024 - Present

- Assessed AI-generated code for readability, correctness and best practices.
- Solved complex coding problems with functional and efficient solutions.
- Identified and fixed functional and security vulnerabilities in AI-generated code.
- **Skills:** Python3, Pandas, Numpy, Matplotlib, scikit-learn

### Techstat dynamics pvt limited

Ludhiana, Punjab (Remote)

Lead Software Engineer (FreeLancer)

11/2023 - 02/2024

- Developed a microservice-based architecture for improved maintainability and streamlined deployments, utilizing advanced Data Structures & Algorithms to optimize system performance.
- Implemented WebSocket communication for stable and efficient data exchange between trading broker and portal.
- Designed and integrated Redis Pub/Sub architecture, achieving a 25% increase in system responsiveness.
- Utilized Docker Compose for containerization and orchestration of microservices.
- Conducted performance testing and monitoring to identify and resolve bottlenecks proactively.
- **Skills:** Python3, Django, web socket, PostgreSQL, ReactJS, Redis, Nodejs, Nginx, Docker

### Radisys Corporation

Bangalore, Karnataka

Senior Software Engineer, 5G Platform Team

07/2021 - 11/2023

- Reduced JIO CCDU Server startup and shutdown times by over 50 seconds. Decreased server size by 72%. Automated setup and configuration, minimizing errors.
- Added customizable metrics and alarms in SysMon. Fixed memory leaks and improved CPU utilization metrics in NGP logger.
- Led a team of five in a hackathon. Participated in feature discussions with the JIO team. Mandatory reviewer for all platform repositories.
- Developed Jenkins build scripts, automated CCDU image building, and created scripts for test cases and code coverage reports. Implemented custom GCC flags and patches for open-source libraries.
- Created startup scripts for custom environments in ProcMon. Ensured compatibility and performance by applying patches before building open-source libraries.
- Implemented WebSocket communication for reliable data transmission and Redis Pub/Sub for microservice communication. Added new features to enhance functionality across systems.
- **Skills:** Object-Oriented Design, High level Design, Draw.io, RHEL, Docker

Software Engineer, 5G Platform Team

- Resolved issues in Process Monitor and System Monitor, including date issues in CentOS.
- Added comprehensive test cases for Process Monitor and System Monitor.
- Conducted integration testing of Process Monitor with software upgrades and coordinated rollback tests with the OAM team.
- **Skills:** C/C++, Bash, Python, Linux, CentOS

### Think201

Bangalore, Karnataka (Remote)

Software Engineer Intern, Web Application Backend Team

09/2020 - 11/2020

- Built the backend of a web application using Node.js.
- Created model schemas and APIs based on specified requirements.
- **Skills:** Node.js, Typescript, PostgreSQL, MongoDB, Express, Swagger, Postman

## TECHNICAL SKILLS

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**Programming Language:** Python ◇ Javascript ◇ C/C++ ◇ Java

**Web Development:** HTML ◇ CSS ◇ Bootstrap ◇ Javascript ◇ ReactJS ◇ Node.js ◇ Django ◇ Express.js

**Database management:** SQL (MySQL, PostgreSQL) ◇ NoSQL (MongoDB, Cassandra)

**Miscellaneous:** Git ◇ Docker ◇ AWS ◇ GCP ◇ REST API ◇ Data Structures & Algorithms ◇

Object-Oriented Design ◇ Microservice Architecture ◇ Design Patterns ◇ Web Security

## EDUCATION

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**National Institute of Technology Karnataka**

Surathkal, Karnataka

M.Tech(Research) in Computer Science & Engineering - Information Security

08/2019 - 12/2022

**Lovely Professional University**

Phagwara, Punjab

B.Tech in Computer Science & Engineering

09/2015 - 06/2019

## ADDITIONAL PROJECTS

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**National Institute of Technology Karnataka**

Surathkal, Karnataka

Research Scholar, Information Security

12/2020 - 12/2021

- Conducted research on network-level mitigation of Mirai malware in IoT.
- Created an isolated environment to demonstrate Mirai malware propagation.
- Implemented a solution to mitigate Mirai malware.
- Published 3 papers on the findings and solutions developed in this project.
- **Skills:** Python, Flask, Mysql, Docker, C, Golang, React.js, IoT, DDoS attacks