# Shubham Kumar

Sshubhamk1@hotmail.com ♦ ☐ +91 9877883408 ♦ ♠ github.com/sshubhamk1 ☐ linkedin.com/in/sshubhamk1 ♦ ♣ sshubhamk1.github.io

#### Professional Experience

#### Scale AI

San Francisco, California, United States (Remote)

Contract Employee via G2i

03/2024 - Present

- AI Code Evaluation: Assessed AI-generated code for readability, correctness and best practices.
- Problem Solving: Solved complex coding problems with functional and efficient solutions.
- Code Review: Identified and fixed functional and security vulnerabilities in AI-generated code.
- Mentorship: Conducted code reviews and mentored junior developers.
- Skills: Python3, Pandas, Numpy, Matplotlib, scikit-learn

# Techstat dynamics pvt limited

Ludhiana, Punjab (Remote)

FreeLancer

11/2023 - 02/2024

- Microservices Architecture: Developed a microservice-based architecture for improved maintainability and streamlined deployments.
- **Reliable Data Transmission**: Implemented WebSocket communication for stable and efficient data exchange between trading broker and portal.
- Efficient Communication: Designed and integrated Redis Pub/Sub architecture for seamless microservice communication.
- Containerization: Utilized Docker Compose for containerization and orchestration of microservices.
- **Performance Optimization**: Conducted performance testing and monitoring to identify and resolve bottlenecks proactively.
- Skills: Python3, Django, websocket, PostgreSQL, ReactJS, Redis, Nodejs, Nginx, Docker

### **Radisys Corporation**

Bangalore, Karnataka

Senior Software Engineer, 5G Platform Team

07/2021 - 11/2023

- Optimized System Performance and Scalability:Reduced JIO CCDU Server startup and shutdown times by over 50 seconds. Decreased server size by 72%. Automated setup and configuration, minimizing errors.
- Enhanced Monitoring and Logging: Added customizable metrics and alarms in SysMon. Fixed memory leaks and improved CPU utilization metrics in NGP logger.
- Leadership and Collaboration: Led a team of five in a hackathon. Participated in feature discussions with the JIO team. Mandatory reviewer for all platform repositories.
- Automation and CI/CD Integration: 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.
- **Process and Environment Customization**: Created startup scripts for custom environments in ProcMon. Ensured compatibility and performance by applying patches before building open-source libraries.
- **Innovative Feature Development**: Implemented WebSocket communication for reliable data transmission and Redis Pub/Sub for microservice communication. Added new features to enhance functionality across systems.
- Skils: Object Oriented Design, High level Design, Draw.io, RHEL, Docker

Software Engineer, 5G Platform Team

- Bug Fixes: Resolved issues in Process Monitor and System Monitor, including date issues in CentOS.
- Test Case Development: Added comprehensive test cases for Process Monitor and System Monitor.
- **Integration Testing**: 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

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

### TECHNICAL SKILLS

**Programming Language:** Python  $\diamond$  Javascript  $\diamond$  C/C++  $\diamond$  Java

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

**Database management:** SQL (MySQL, PostgreSQL)  $\diamond$  NoSQL (MongoDB, Cassandra)

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

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

## **EDUCATION**

### 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

#### National Institute of Technology Karnataka

Surathkal, Karnataka

Research Scholar, Information Security

12/2020 - 12/2021

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