

Mahshooq Zubair *Senior Software Engineer*

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📄 PROFILE

Senior Software Engineer with 4+ years of experience in **full-stack development**, **security engineering**, and **automation**. Experienced in designing **scalable SaaS architectures**, **optimizing application performance**, and **integrating AI-driven workflows** and **cloud automation**. Combines hands-on product development with application security expertise to build secure, reliable systems.

🧠 SKILLS

Backend & APIs: Python (Django, Flask), Go (Chi), REST APIs, Celery
Databases & Caching: PostgreSQL, MySQL, MongoDB, Redis
Frontend & Mobile: JavaScript, TypeScript, React, Vite, Tailwind CSS, shadcn/ui, React Native
Cloud Platforms: AWS (ECS, Batch, Lambda, CloudFormation, CloudFront), GCP, Azure, DigitalOcean
DevOps & Infrastructure: Terraform, Docker, Docker Compose, Nginx, Linux, GitLab CI/CD
AI & Automation: LLM Integrations, Vercel AI SDK, LangChain, Model Context Protocol (MCP), AI-assisted Development Workflows
Application Security: Web & API Security, Source Code Review, Threat Modeling, Security Automation
Performance Testing: k6, Apache JMeter

📁 WORK EXPERIENCE

Senior Software Engineer, Applied Informatics Solutions Pvt. Ltd. Apr 2025 – Present | Remote

- **Optimize application performance and improve system design** across existing applications.
- **Improve developer experience** through internal tooling and workflow automation.
- **Built an AI-assisted GitLab workflow** that generates fixes for HTTP 500 errors and opens merge requests for review.
- **Perform application security testing** to identify vulnerabilities in existing systems.
- **Selected for the six-month Head of Initiatives program**, focused on application performance, security practices, and infrastructure monitoring.

CyberHeals

Senior Software Engineer	Sep 2024 – Mar 2025 Remote
Software Engineer	Oct 2023 – Sep 2024 Chennai, India
• Led full-stack development of security products within a microservices architecture. • Isolated vulnerability scanning in containerized Celery workers, offloading processing from the main application. • Integrated AI-driven vulnerability remediation suggestions into the platform. • Automated compliance evidence collection through third-party platform integrations. • Designed cloud security automation using AWS Lambda and CloudFormation to support cloud security posture management. • Resolved critical security vulnerabilities in the platform.	

Junior Software Engineer, Zennode Technologies [↗](#) Jul 2022 – Sep 2023 | Calicut, India

- **Designed and built a multi-tenant SaaS architecture** with tenant isolation.
- **Led a team of four engineers**, guiding technical decisions and improving code quality.
- **Developed an AI-based medication recommendation system**, using doctors' historical records to assist prescription decisions.
- **Enhanced CI/CD pipelines** to automate application deployments.

Backend Developer, Infyplus Innovations [↗](#) Apr 2022 – Jul 2022 | Idukki, India

- **Developed Django APIs for a learning management system** and assisted with application deployment and server configuration

PROJECTS

Connect (TrialX) [↗](#), Enterprise Patient Recruitment Management System Apr 2025 – Present

- **Contribute to the development of a Django-based patient recruitment platform** supporting clinical-trial discovery and recruitment workflows.
- **Optimize application performance and refine existing system design**, improving the platform's efficiency and maintainability.
- **Perform application security assessments**, including testing of clinical-trial listing and search functionality.

Truza [↗](#), AI-Driven Compliance Automation and Security Platform Oct 2023 – Mar 2025

- **Integrated security compliance, penetration testing, and source code review tools** into a unified platform.
- **Implemented cloud security automation** using AWS Lambda and CloudFormation.
- **Developed third-party integrations for automated compliance evidence collection** and integrated AI-driven vulnerability remediation suggestions.

DocHours [↗](#), Multi-Tenant Clinic Management Platform Aug 2022 – Sep 2023

- **Architected and developed a multi-tenant SaaS platform** for clinic management, with tenant isolation.
- **Optimized database performance** and built CI/CD pipelines to automate application deployments.
- **Implemented AI-powered prescription suggestions** to assist doctors with prescription decisions.

BookWorm [↗](#), AI-Powered Note-Taking Application Feb 2022 – Jun 2022

- **Led a four-member team to develop a web-based note-taking application** using LLMs.
- **Implemented AI-driven recommendations** to support content organization.

SECURITY RESEARCH

CVE-2024-12880 - RAGFlow [↗](#)

Reported a partial account takeover vulnerability caused by insecure data querying.

CVE-2023-36809 - Kiwi TCMS [↗](#)

Credited as a reporter for a stored cross-site scripting vulnerability.

TECHNICAL PUBLICATIONS

Multi-Tenancy in Flask [↗](#)

Authored a practical guide to schema-per-tenant SaaS architecture using Flask and PostgreSQL, covering tenant provisioning, authentication, database migrations, and request-level schema switching, with accompanying source code

EDUCATION

B.Tech in Computer Science and Engineering, Glocal University [↗](#)