SUSHIN K

Information Security Software Engineer

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PROFESSINAL SUMMARY

Information Security Software Engineer with over 6 years of hands-on experience in building and testing high-demand security software. Specialized in system design, AI agents, prompt engineering, information security, and backend/API development.

- Proficient in programming languages including Python, JavaScript/TypeScript, and C++.
- Skilled in database design and development using Scylla DB, MongoDB, PostgreSQL, and MySQL.
- Proven track record in identifying and mitigating risks, safeguarding infrastructure, and enhancing organizational security posture.
- Extensive experience with frameworks such as Flask, Django, Next.js, Node.js, Express.js, Electron, and Expo.
- Practical experience in cybersecurity, specializing in secure system design, network security, malware analysis, vulnerability assessment, and penetration testing.
- Experienced in using testing tools such as Postman, Bruno, HTTPie, cURL, Developer Tools, and Burp Suite, Wireshark, Playwright. Deep understanding of performance, privacy, scalability, instrumentation, logging & alerting.
- Proficient in RESTful APIs, GraphQL, and WebSockets.
- Strong understanding of object-oriented programming (OOPs concepts) and data structures and algorithm (DSA).
- Demonstrated strong analytical and problem-solving abilities, along with excellent interpersonal communication skills.
- Proficient in version control with Git and experienced with deployment tools such as Jenkins, Docker, GitHub Actions, and GitLab.

WORK EXPERIENCE

Information Security Software Engineer

[Lumen Technologies](#), Bengaluru (Dec/2020 - Present) (4 Years and 6 Months)

Developed and implemented an automated security testing pipeline using Django, reducing testing time by 65% and significantly enhancing coverage.

Configured and maintained Network Protection Services and Generic Routing Encapsulation (GRE) to ensure robust security and protection, achieving a 98% customer satisfaction rate.

Performed network security verification using internal tools and software, and configured Nokia and Juniper routers.

Proficient in software development and scripting with Python.

Experienced in configuring Fortinet Firewalls and Arbor DDoS protection devices, ensuring efficient service delivery.

Networking Engineer – Python Network Automation

[Tejasnetworks](#), Bengaluru (Jan/2019 - Dec/2020) (1 Year and 11 Months)

Python network automation, streamlining operations and cutting time by 85%.

Delivered 400+ Root Cause Analyses (RCA) and developed detailed Plans of Action (POA) to resolve issues, achieving 95% customer satisfaction.

Tested network devices in a lab environment and reproduced bugs to facilitate troubleshooting and resolution.

Conducted security testing and facilitated customer activation calls to ensure seamless implementation and support.

Tested network devices in a lab environment and reproduced bugs to facilitate troubleshooting and resolution.

TECHNICAL SKILLS

Languages: Python, JavaScript/TypeScript, C/CPP
Artificial Intelligence: Prompt Engineering, AI Agent, LLM
Security: IDS, IPS, Firewall, CCNA Security, CCNP Security, IPSec, VPN, CEHv11, SIEM, Security+, Network Security, DDoS Mitigation, Arbor, Cloud Security, API Security, Security Code Review
Scripting Languages: Bash, Python, PowerShell

Frameworks: Flask, Django, NextJS, NodeJS, ElectronJS, Expo
Libraries: ReactJS, Tailwind CSS, React-Redux, TanStack, React-Native, React Router, SWR, Framer Motion, React Spring, Emotion, Prisma**,** NextAuth.js, JWT, Django Channels, Apollo – GraphQL, Axios**,** Zod, Turbopack, Webpack, DOMPurify
Databases: MySQL, PostgreSQL, MongoDB, MySQL, Scylla DB, Cassandra DB
Operating Systems: Windows 11, Linux, MacOS, Ubuntu Server, RHEL, Kali Linux
Container: Docker, Kubernetes
Testing: Postman, Burp Suite, Redux dev-tool, ReactJS dev-tool, HTTPie, Testing Library, Jest, Wireshark, Android Studio, OWASP ZAP, Playwright
CI/CD: Jenkins, GitHub Actions
Cloud: AWS, Google Cloud
Versioning Tools: Git, GitLab
SDLC: Agile, DevOps Model

EDUCATIONAL QUALIFICATIONS

Bachelor of Engineering (B.E) in Electronics and Communication Engineering
- Board/University: Anna University Chennai
- Year of Graduation: 2016

Higher Secondary Education - Computer Science
- Board/University: Kerala State Board
- Year of Passing: 2012

Secondary Education
- Board: Kerala State Board
- Year of Passing: 2010

COURSES AND CIRTIFICATIONS

Certified English Professional (10/2024 - 11/2024)

Cambridge English Academy, Bengaluru

Certified Ethical Hacker v11 (2021 - 2022)

EC-Council, Online

CCNA, CCNP R&S and Security (July/2019 - Sep/2019)

Networkers Home, Bengaluru

Emertxe Certified Embedded C Programming Professional (Dec/2017 - Sep/2018)

Emertxe Information Technologies, Bengaluru

CAREER ACHIEVEMENTS

Promoted from P2 level to P3 level in recognition of expertise and performance.

Developed a Django application that transformed CLI-based tasks into a user-friendly web interface, enabling network status checks and the execution of router and Arbor commands to configure DDoS security devices.

Created Python-based network and device automation scripts, reducing manual configuration workload by 35%.

Implemented network security through access control policies.

PROJECTS

Lumen Technologies

Network Audit Tool

Technologies: Python-Django, SQL Database, Linux, HTML, CSS

Description:

Developed a robust network audit tool using Python and Django to automate network assessments, analyze configurations, and generate compliance reports. Implemented features for device discovery, security checks to enhance network visibility and performance.

Responsibilities:

- Developed a **Python-Django** based tool for auditing network devices and configurations.
- Designed an interactive dashboard for analyzing audit results and generating reports.
- Optimized tool performance for scalability across large network infrastructures.

DDoS Build and Activation Tool

Technologies: Python, Django, Arbor, Nokia/Juniper Routers

Description:

Designed and developed a web-based DDoS mitigation tool that integrates with Arbor and network routers to configure, activate, and deliver DDoS protection to customers. Implemented automation for streamlined attack mitigation, real-time activation, and enhanced network security.

Responsibilities:

- • Designed and developed a web-based UI for **DDoS attack mitigation** and configuration.
- • Integrated the system with Netscout **Arbor** and network routers for real-time DDoS protection.
- • Ensured seamless API communication between the UI, Arbor, and network devices.
- • Worked with network engineers to align mitigation strategies with infrastructure needs.

Tejasnetworks

Network Automation Script written in Python

Technologies: Python, RedHat Linux, Proxmox Virtual Environment, Switch, Router

Description:

Developed an automation system to streamline the configuration and management of networking tools, including optical transport platform and Linux-based hosts. Integrated scripting to enhance operational efficiency, reduce manual intervention, and improve network reliability.

Responsibilities:

- • Enhanced system scalability and reliability through automated error handling.
- • Collaborated with network engineers to optimize automation for real-world deployments.

PERSONAL PROJECTS

Github Account: https://github.com/sushink70

Authentication, Authorization, Payment System

Technologies Used: Python - Django | allauth | REST API | Django Rest Framework | dj-rest-auth | Typescript - NextJS | NextAuth | AXIOS | PostgreSQL | Linux | Virtual Machine | react-stripe-js | razorpay | FastAPI | Python Stripe

Command and Control Server

Technologies Used: Python | PostgreSQL | Linux | Virtual Machine | Nginx | Django

MemErase - Deep memory erase tool

Technologies Used: C++ | Github | Linux | Virtual Machine

Bug Bounty and Capture the Flag

Technologies Used: Nuclei | Kali Linux | Burp Suite | ZAP | Hackthebox | Powershell | Postman | Metasploit-Framework | Wapiti | wafw00f | PentestGPT | Protocol Analysis | Wireshark

Desktop Application – ElectronJS

Technologies Used: Typescript | Vite | ReactJS | Tailwind CSS

Mobile Application – React-Native, Expo

Technologies Used: Typescript | React-Native | Linux | Windows 11 | Babel | ESLint | Tailwind CSS

INTERESTS

Cyber Security Software Development, Cloud infrastructure

System Design, Backend architecture, Full Stack Web Development

Application Development: Desktop, Mobile

Declaration:

I solemnly declare that all the details provided in this resume are correct and complete to the best of my knowledge. I take full responsibility for the accuracy of the information.

Place: Bengaluru
Signature: Sushin K