Rajkumar Varsani

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Education

Indian Institute of Information Technology, Gwalior   2020 – Expected 2025
Integrated Bachelors and Masters in Information Technology   *Gwalior, India*

Experience

Software Engineer Intern   **Feb 2024 – Present**
Groww ⎋ | *India's Premier Investment Platform*   *Bengaluru, India*
- Led the end-to-end development of **Payments Web SDK**, overseeing everything from **Architectural Design** to **Final Testing and Deployment**. This project substantially improved the **Payment Experience** for millions, offering a more stable and versatile payment solution.
- Developed dynamic **Routing** and **Scheduling** for **Payment Gateways**, optimizing traffic management during high-traffic scenarios and significantly reducing system downtimes by **Directing Traffic** to alternative providers.
- Utilized a modern tech stack including **TypeScript**, **React**, and **Zustand** to build scalable and efficient solutions.

Fullstack Developer Intern   **Feb 2022 – Jan 2024**
KoinX ⎋ | *$1.5M - Seed*   *Remote*
- Engineered the **Accounting** and **CA platforms**, specifically designed for **Cryptocurrency Transactions**, from concept to deployment. Leveraged a robust tech stack including **Node.js, MongoDB, Docker, Nats, Express, and React.js**. Implemented several **B2B Integrations** that facilitated customer acquisition, enhancing platforms' utility.
- Established robust and efficient microservices through the use of automated tools, including **AWS** services like **SES**, **SNS**, and **S3**, along with **Cron** and **Socket.io** for enhanced scheduling and real-time communication
- Integrated **Prometheus Metrics** for system **Performance Monitoring** and developed a microservice using **GitHub Actions** and **Octokit** to synchronize common code across multiple GitHub repositories, ensuring code consistency.

SDE Intern   **Jan 2023 – Dec 2023**
Xpertree ⎋ | *Innovator in Pharma Insights*   *Remote*
- Spearheaded complete **Overhaul** of the web application, transitioning from **Angular** to **Next.js 13** to enhance user experience and system performance, resulting in a more modern tech stack and improved user engagement.
- Led the development of **critical features** such as **Engagements**, **Mapping**, **Insights**, and **AI Integrations** with platforms like **OpenAI** and **Anthropic**, which were pivotal in driving **company growth** and enhancing UX.
- Worked on backend and database systems using **Java Spring Boot**, **MariaDB**, and **ClickHouse**, and utilized frontend technologies like **Next.js**, **SWR**, **Novel**, and **Zustand** to optimize data management and application performance.

Projects

Phalanx - API Security and Monitoring Framework | *NodeJS, TypeScript, NextJS, gRPC, Azure*   ⌗ | **Sept 2023**
- Submission that secured my team **Second Runner Up** position in **Flipkart GRiD 6.0** among **17,000+** participants.
- Developed a **Tree-Based Route Structure** for **Real-Time API Discovery** and Management, and provided a highly Customizable **Rules Configuration** to protect against **OWASP Top 10 Vulnerabilities** such as **Broken Auth**.
- Enhanced security analysis with **LLM-Powered Monitoring** and **RAG Analysis** for external API consumption, and **Dynamic Data Population** with Regex Support to automate and secure **API request generation**.
- Integrated an architecture with 8 microservices using **NodeJS**, **gRPC**, and **MongoDB**, including components like Scout for comprehensive Automatic and On-Demand Vulnerability Scanning for configured rules, and Sysmon.

Atopsy - Server Failure Diagnostic Tool | *Rust*   ⌗ | **Jun 2024**
- Leveraged the **Historical Record Keeping** capabilities of popular Linux System Monitoring tool Atop to analyze system information and provide statistical insights on server failure.
- Implemented an **Advanced Stream Processing Rule Engine** using **Rust** with reusable transform functions, enabling flexible application of **Instantaneous and Time-Window Based Rules** for **3+ different sets of rules**.
- Parsed Atop's raw record files using **C Struct Packing**, to efficiently utilize Atop's logged data with Rust.
- Enhanced server diagnostics by providing detailed analysis of system metrics, enabling quicker identification and resolution of server issues.

Achievements

3rd Position in **Flipkart GRiD 6.0**	**Finalist [Top 0.5%]** in **Code with Cisco 2024**
4rd Position in **Rakathon 2024**	**1st Position** in **DSC-IIITM Android Hackathon**
2nd Position in **Smart India Hackathon 2022**	**3rd Position** in **HackStack Hackathon**
1st Position in **Wix DevCon Hackathon 2022**	**2nd Position** in **Hack-A-sol 2.0 Hackathon**
Top 5 Teams in **Razorpay FTX Hackathon**	**3rd Position** in **Cuvette Codocatober Hackathon**

Technical Skills

Languages: TypeScript, JavaScript, Go, Solidity, Java, C++, C, Kotlin, Dart
Technologies/Frameworks: React, Next.js, Express.js, Gin, Node, Angular, Spring Boot, Flutter, Nats, Jest, AWS, Git
Database Systems: MongoDB, Redis, PostgreSQL, MariaDB, Firebase