# Rajat Kumar Singh

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### Professional Experience

## GeniScience Pvt Ltd — Full Stack Developer May 2023 – Present

- Deployed a complete STEM education platform for an Organisation within a month, single-handedly handling product listings, content creation,, resulting in a 25% increase in mobile conversions.
- Integrated e-commerce features with Stripe API and optimized site performance through lazy loading and image compression improving performance by 20%.

## Next Tech Lab, AP — Member Sep 2023 – Present

- Actively contributed to a QS-ranked, student-led R&D lab specializing in the Internet of Things. Earned a promotion to Member after excelling in two rigorous evaluations, demonstrating technical expertise and leadership.

## TECHNICAL PROJECTS

# SecureOps: Website Protection Extension (JavaScript, Manifest V2) (GitHub)

- Chrome extension that locks access to specific websites using a master password. Once unlocked, the site remains accessible for 15 seconds; refreshing or closing the tab triggers re-verification.
- Deployed rate-limiting protocol (5 attempts/second) on web application login, thwarting 98% of brute-force login attempts and decreasing potential data breaches by an estimated 60% immediately after implementation.

#### PuroAqua: IoT Water Quality Monitoring System (Python, NodeJS) (GitHub)

- Made a Raspberry Pi3-based system that uses color detection sensors(TCS3200) to analyze water samples equalling the accuracy of Ion selective Electrodes.
- Converts sensor readings into hex codes and compares it against preset contamination indicators, displaying the level of contamination.
- Reduced operational costs by 80% and enabled real-time data monitoring via MongoDB Atlas.

#### Healthcare Chatbot (Python) (GitHub)

- Engineered an interactive chatbot that asks users about their symptoms and ,the duration of the condition.
- Utilizes a Decision Tree classifier with an accuracy of approximately 92% to predict diseases based on symptom analysis, the model intelligently fits the input data to provide the most probable diagnosis

## ACHIEVEMENTS

- Winner Secure X Hackathon (International): Developed the SecureOps extension under the "Response and Mitigation" challenge, delivering a client security solution under 24 hours.
- Winner 9Hacks Hackathon: Designed and implemented an entry and exit management system for the lab using ESP32 and RFID sensors, while mentoring first-year team members.
- SRM University AP (Top 5%): Awarded a 100% merit scholarship, securing the honor among 2 lakh participating students in SRMJEE Examination.

# **EDUCATION**

2023 – 2027	B.Tech Computer Science & Engineering — SRM University AP	CGPA: 9.12
2021 - 2023	Higher Secondary Education (CBSE) — VidyaGyan School	88.4%
2019 – 2021	Secondary Education (CBSE) — VidyaGyan School	94.5%

# TECHNICAL SKILLS

Languages: Python, JavaScript (ES6+), C/C++, SQL, HTML5/CSS3 Frameworks: React.js, Node.js, Express.js, Tailwind CSS, Bootstrap

Databases: MongoDB, SQL

Embedded Systems: Raspberry Pi, Arduino, ESP32

Cloud & DevOps: AWS, Firebase Version Control: Git, GitHub