



Aaditya Rengarajan

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Bachelor of Engineering
in Computer Science and Engineering
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INTERNSHIP EXPERIENCE

	Position	Term	Domain	Organization	Duration	Point of Contact
	Security Operations Centre (SOC) Intern	May 2024 - July 2024	Log Server Administration, Threat Hunting, Web Development, Cybersecurity	Indian Space Research Organization, India	1 Month, 21 Days	Savitha S (+914023884599)
	IT Intern	June 2023	Server Administration, Web Development, Cybersecurity	EQUATE Petrochemical Company, Kuwait	1 Month	Hamad-Sayegh (+965 9923 5118)
	Security Software Engineer Intern	March 2022 - August 2023	Cybersecurity, Python, Face Recognition, REST API	Tactical Cyberange Simulations Pvt. Ltd., India	1 Year 6 Months	Harsh Shah (+917666222837)
	Software Engineer Freelance	August 2022 - Present	ReactJS, Python3, API Development, Mobile Apps	PSG Hospitals, India	1 Year, 10 months	Dr. L S Jayashree (+919994254502)
	Dark Web Monitoring and Software Engineering Intern	January 2022 - August 2022	Dark Web, Web Scraping, Cybersecurity	Information Sharing and Analysis Centre, India	7 Months	Ansuman Hazarika (+918638184952)
	Falcon Penetration Tester	January 2022 - March 2022	Penetration Testing, Cybersecurity, Vulnerability Management, Threat Hunting	National Security Database, India	3 Months	Dr. Rohit Gautam (+918200805621)

EDUCATION AND QUALIFICATIONS

- Certified Cybersecurity Intervention Officer under ISAC India in October 2021.
- National Security Database Certified Penetration Tester under NATSEC ISAC in January 2022.
- Certified Application Security Practitioner by The SecOps Group in December 2022.
- Certified in Purple Teaming Fundamentals by CyberWarfare Labs in October 2023.
- Certified in Cybersecurity by ISC² in August 2023.
- **Secondary Schooling:** Bharatiya Vidya Bhavan, Kuwait (CBSE).
- **Higher Secondary Schooling:** Delhi Public School, Kuwait (CBSE).
- Final Year at **B.E Computer Science and Engineering:** PSG College of Technology, Coimbatore (Affiliated to Anna University).

TECHNICAL SKILLS

- **Programming Languages:** C, Python, SQL, HTML, CSS, JavaScript, Java, Bash, Batch
- **Tools and Frameworks:** Jupyter, Sublime Text, Figma, FastAPI, PostgreSQL, DBEaver, MongoDB, Flask, Git, Docker, Selenium, TensorFlow, Bootstrap, MySQL, NGINX, PM2.
- **Operating Systems:** Windows, Manjaro Linux (Arch-Based), Ubuntu and Kali Linux & Android.
- **Additional Skills:** Premiere Pro, Photoshop, AfterEffects, Lightroom, Blender, GIMP, OBS Studio, FL Studio.

RESEARCH PROJECTS

- Enhanced cybersecurity resilience with **CYBRANA: A Cyber YARA/YAML-Based Resilience Firewall Solution Applied with Next-Gen AI** detecting potential cyber attacks, mapping them with MITRE CAPEC for classification and mitigation, bridging gaps between existing frameworks and server logs for robust security *accepted, 3rd IEEE International Conference on Computer Vision and Machine Intelligence, Prayagraj, India, 2024*
- Enhancing Privacy-Preserving ML with Adversarial Techniques introducing a scheme integrating adversarial techniques with differential privacy and homomorphic encryption for robust privacy-preserving ML. *accepted, 1st IEEE International Conference on Distributed Systems, Computer Networks and Cybersecurity, Bangalore, India, 2024*
- Presented paper on **Leveraging Detection of Data Breaches by Applying Snowball Sampling** at the **International Conference on High Performance and Intelligent Computing**.

CERTIFICATIONS, AWARDS AND RECOGNITIONS

- First Prize in **IISF Space Hackathon 2024** primarily conducted by **Indian Space Research Organization** . Worked on a cybersecurity firewall framework using A.I with 92.98% accuracy, alongwith YARA/YAML Rules and pattern matching.
- **Ethically Hacked Domains:** Indian Navy (Principle Controller of Defence Accounts); Governments of India, UAE, Kuwait, Qatar; Nykaa, Razorpay, FlyBig, and other private industries.
- Recognized by **CERT-IN (Government of India)**, **NCSC (Government of Kuwait)**, **IT Head of FlyBig** for ethical hacking.
- Recognized by **EQUATE Petrochemical Company** for creating Material Tracking Dashboard tool with the Enterprise NetApps team.
- Third Place in “AI/ML HackMyPlace” Hackathon organized by **Société Générale** on developing AI/ML Incident Resolver.
- First Prize in "Web Replica" Event and Second Prize in “GitX” GitHub Collaboration and product development hackathon organized by **PSG College of Technology**.

POSITIONS OF RESPONSIBILITY

- **Cybercrime Intervention Officer**, National Security Database: Advocating, training, facilitating first response support, networking, ensuring quality, gathering feedback, and enforcing compliance.
- **Leadership Roles**, The Eye: Created a cyber-security club within the institution, developing mission-critical security software, resulting in 30% reduction in cyber threats. Delivered multiple workshops as key speaker and conducted multiple hackathons and events to spread knowledge on Cybersecurity, reaching over 300 students annually.
- **Systems Programmer**, Rocketry India: Systems Programming at (<https://www.rocketryindia.in/>) assisting with innovative Ground Control Systems, and on-board flight systems. Worked on amateur rocket that reached an altitude (apogee) of 1km with recovery. Supporting the Avionics Team, and coordinated with CAD, Propulsion, Aerodynamics and Recovery Teams. Report published on International Journal of Science and Research (<https://www.ijsr.net/getabstract.php?paperid=SR24104110501>).
- **Technical Team Leader**, Students' Union, PSG College of Technology: Guiding team of developers and crafting software solutions for the institution, resulting in 25% decrease in administrative workload. Solutions garnered 20% increase in student engagement. Implemented rigorous security testing protocols.

PROJECTS

- **National Security Project** *Apr 2023 - Jul 2023*
Face Recognition for national security in Indian aerodromes
 - Spearheaded adoption of secure coding principles for back-end API, resulting in 50% decrease in known security vulnerabilities and safeguarding sensitive customer data.
- **Company Security Posture Project** *Jun 2023*
Automated reconnaissance tool for verifying company's outside visibility and security posture.
 - Software creation for automated reconnaissance process: public visibility assessment of organizational assets.
 - Identified over 100 previously unknown public-facing assets, enabling proactive risk mitigation strategies.
 - Enumeration of online hosts (IT and OT devices) with port exposure.
 - Automated review for over 5,000 employee records for email breaches.
- **Digital Signatures** *Jun 2023*
Document Signing and Flow Control Tool.
 - Digital Cryptography based document signing and flow tool supporting multiple/simultaneous signatures of members.
 - Algorithm and architecture devised using Public Key Infrastructure, using blockchain for storage.
 - Transition from paper-based to digital document signing, organizations estimated 6-ton reduction in annual carbon emissions, contributing to environment sustainability.
- **Material Tracking Dashboard** *Jul 2019 - Nov 2021*
Petrochemical Plant Materials Tracking for Maintenance Planners. <https://equate.intellx.in/>
 - Tracks materials and work orders for the Reliability and Maintenance Department at EQUATE Petrochemical Company, Python-based web dashboard coded in Flask interacting with BAPIs coded in ABAP.
 - Adoption of tool resulted in \$327,600 reduction in annual expenses.
- **General Maintenance Software** *Dec 2021 - Dec 2022*
Maintenance management made easier for colleges and universities. <https://gms.psgtech.ac.in/>
 - Platform for students to report maintenance-related issues, uses MongoDB, allowing administrators to swiftly log problems.
 - Feedback surveys indicate 85% increase in overall satisfaction.

EXTRA-CURRICULARS

- 3,594 hours of flight simulation A321neo, B77W, B738 equipment on VATSIM and IVAO platforms.
- Diploma in Meteorology on Alison Courses.
- ABRSM Grade 3 Piano and Music Theory
- Tinkering with Arduino projects to create innovative and interactive electronics.
- Contributing to FOSS, and setting up my own home VPN and lab for hands-on tech experiments.