

Shyam Jee Rai

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Summary

Software Engineer with expertise in Software development, Cyber security and automation. I possess strong teamwork abilities, quick learning skills, and a positive attitude. I am passionate about exploring the latest technologies and applying them to build secure, scalable, and efficient solutions.

Education

PCET'S Pimpri Chinchwad University B.Tech in Computer Science Engineering 08/2023 - Present

- Relevant Coursework: Computer Networks, Data Structures and Algorithms, AI/ML, Software Development.

Experience

AICTE – EduSkills | Cybersecurity Virtual Intern 04/2025 - 06/2025

- Successfully completed a **10-week** Cybersecurity Virtual Internship supported by **Palo Alto Networks**, spanning from April to June 2025. Gained industry-aligned expertise in network security and digital asset protection through the AICTE National Internship Portal.

Projects

Hybrid Mode of DDoS Detection

- Developed a solution to address the dynamic nature of DDoS attacks in high-speed environments with limited real-time explainability. Implemented real-time DDoS classification using hybrid and N-I optimization techniques, incorporating Explainable AI (XAI) for enhanced understanding of detection methods

Technology Used:- Real-time DDoS classification, Hybrid and N-I optimization, Explainable AI.

Blockchain Based Certification Validation System

- Designed and built a secure DApp to validate data wiping processes. The system generates tamper-proof PDF certificates and stores them on IPFS for decentralized access. By anchoring the certificate hashes on a local Ethereum blockchain (Ganache) via custom Solidity smart contracts, the project ensures the permanent immutability and widespread verification of data destruction records. The user interface was developed using Streamlit for seamless interaction.

Technology Used:- Python, Streamlit, IPFS, Ganache, Solidity.

Online Examination Portal

- Developed a secure, end-to-end full-stack web application designed to digitize and automate the examination process. The platform enables Administrators/Lecturers to create and manage dynamic question banks, while providing Students with a seamless interface for taking exams and viewing instant results. The system addresses traditional logistical bottlenecks by offering automated grading, real-time result analysis, and secure session management.

Technology Used:- Frontend - React.js, Vite, React Router. **Backend -** [Node.js](https://nodejs.org/), Express.js.

Database - MongoDB (NoSQL) with Mongoose ODM

Skills

Languages : C , C++ , Python , Java , Javascript , Typescript .

Technologies: Arduino, Express.js, Next.js, React.js, MongoDB, Node.js, AWS, Git, Github.

Achievements

- 1st Place at PCU in Tech Expo 2024 For Destroyer (capability to emit high-voltage pulses coupled with magnetic fields, our creation can neutralize nearby devices effectively).
- 2nd Place at PCU in IoT Project Expo For Destroyer 2.0(a groundbreaking fusion of IEEE 802.11 network penetration and a 100,000-volt EMP (Electromagnetic Pulse) wave capable of disrupting electronic systems. While the concept holds immense potential for defense-sector applications (think strategic EMP technology for safeguarding critical infrastructure).
- SIH 2025 College Round Finalists (PCU05) Problem Statement ID: 25070 Title: Secure Data Wiping for Trustworthy IT Asset Recycling Focus: Cross-Platform Hardware-Level Erasure & Tamper-Proof Certification.
- Secured a position in the top 10 out of 100 participant teams at a college hackathon for the project "Hybrid Mode for DDoS Detection.

Certificates

- Certificate for the Completion of Python 3.4.3 Training from the Spoken Tutorial Project, IIT Bombay. [Scores: 95% Credits: 4].
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