

Joy Shah

New Brunswick, NJ 08901 | joyshah2003@gmail.com | (615) 484-3314 | [linkedin.com/in/joy-shah62](https://www.linkedin.com/in/joy-shah62) | github.com/joyshah62

EDUCATION

Rutgers University – New Brunswick

M.S. in Computer Science (GPA 3.66/4)

Aug 2025 - May 2027

Graduate Student

Charusat University

B.Tech. in Computer Science & Engineering (CGPA 9.15/10)

Dec 2021 - Jun 2025

Nadiad, India

TECHNICAL SKILLS

Programming Languages: Python, C++, C, Java, Kotlin, SQL, JavaScript, HTML & CSS

Web & Backend Development: React, Node.js, Express.js, Flask, REST APIs, Tailwind CSS

Databases & Storage: MongoDB, MySQL, Firebase, PostgreSQL, DynamoDB

Cloud & DevOps: AWS, Docker, Kubernetes, Bash, SSH, Git, Apache ModSecurity, ELK Stack

Data & ML: Pandas, NumPy, TensorFlow, PyTorch, OpenCV

System Design: Microservices, Distributed Systems, Load Balancing, Caching

PROFESSIONAL EXPERIENCE

Rutgers University

Part Time Lecturer

Onsite - New Brunswick, NJ

Feb 2026 – Present

- Deliver lectures and develop interactive course materials on relational algebra, ER modeling, SQL, normalization, and indexing for 100+ undergraduate students across multiple recitation sections.
- Build and maintain PostgreSQL-based demo scripts and live coding exercises covering ACID transactions, concurrency control, and query optimization, used as supplementary teaching resources.
- Introduce modern database architectures including key-value stores (DynamoDB), document databases (MongoDB), and graph databases (Neo4j), giving students exposure to both relational and NoSQL systems.

Forenzy Networks

AI/ML Intern

Onsite - Vadodara, India

Dec 2024 – April 2025

- Engineered a real-time security log pipeline in Python on Apache ModSecurity, processing 10K+ requests per minute and increasing threat-detection throughput by 35% in test environments.
- Enhanced a containerized microservices architecture with Docker and CI/CD using YAML files and Dockerfiles, cutting deployment time by 53% and reducing deployment-related downtime by 40%.
- Designed Flask APIs and ELK dashboards for live attack analytics and system health monitoring, reducing security incident investigation time by 18% and improving response speed by 65%.
- Implemented a BERT-based anomaly detection engine on HTTP traffic, training on honeypot-collected attacker data that was cleaned and labeled in-house, achieving 95% accuracy with 20% fewer false positives.

CyberNGO

Cybersecurity Research Intern

Onsite - Vadodara, India

May 2024 – June 2024

- Developed a full-stack fraud detection platform for 100+ monthly users with sub-5-second response times, integrating an NLP classifier that achieved 90% accuracy and cut manual review workload by 50%.
- Architected scalable Python backend services with MySQL and containerized deployment, processing thousands of communication records daily and reducing data retrieval latency by 40%.
- Created a responsive React frontend with JWT-based authentication and real-time fraud alerts, reducing user drop-off during reporting by 25% and contributing to a 7% drop in confirmed fraud cases.

TECHNICAL PROJECTS

SnapInterview – LLM-Powered Mock Interview Platform

- Engineered a RAG pipeline with semantic chunking and vector embedding of resumes, enabling context-aware retrieval to generate personalized interview questions via LLaMA-3.2-3B with prompt injection-hardened prompts.
- Designed a multi-stage AI interviewer agent orchestrating Whisper for speech-to-text, retrieval-augmented question generation, and a structured evaluation engine with weighted rubrics, adapting follow-ups based on responses.
- Architected a modular Python backend with decoupled inference, retrieval, and evaluation microservices, connected to a React frontend and AWS S3 for persistent video storage and cross-session performance tracking.

BVS – Ayurvedic Ecommerce & Management Platform

- Developed a production e-commerce platform managing 200+ SKUs with real-time inventory tracking, reducing stockouts at checkout by 30% through accurate availability checks.
- Designed a Flask + ReactJS full-stack platform with role-based access control on MongoDB for orders and stock management, cutting manual inventory updates by 50% and improving order processing time by 35%.
- Integrated AWS S3 for product image storage, Docker + Nginx for containerized deployment, and Razorpay for secure payments, increasing checkout success rate by 20% and reducing image-related page errors by 40%.