

EXPERIENCE

- **Limeroad** Gurugram
Software Development Intern February 2025 - August 2025
 - Led conception and design of innovative storefront features, building cutting-edge solutions in **distributed computing environment** that drove fundamental changes in customer shopping experience; created new products from scratch while managing ambiguity and solving broadly defined problems in fast-paced cycles.
 - Engineered modern "AddAddress" screen with automated testing workflows and Docker containerization, **implementing granular runtime location-permission handling** (Android13 APIs) and **Google FusedLocation Provider**; optimized checkout address-entry time through performance optimization and virtualization techniques.
 - Developed scalable backend services using Java for e-commerce platform, **implementing fault-tolerant, low-cost distributed systems** that **enhanced customer shopping experience** across scalable infrastructure serving 50k+ users; designed solutions impacting customer satisfaction through high-performance, reliable architecture.
- **College Setu** Delhi
Software Development Intern May 2024 - July 2024
 - Architected enterprise Data Collection Portal implementing full **software dev lifecycle using SQL and Flask**; maintained technical documentation in wiki systems and cross-functional teams **using Agile methodologies**.
 - Collaborated with cross-disciplinary teams including product managers and data scientists to architect scalable data platform using SQL and distributed technologies; delivered high-quality software solutions from broadly defined problems in agile environment with development cycles measured in weeks.

PROJECTS

- **Distributed Email Analytics Platform** React, TypeScript, Gmail API, OAuth2
Repository 07/2025 - 07/2025
 - **Scalable Systems:** Built **distributed email processing** integrating Gmail API with OAuth2 authentication, creating **fault-tolerant architecture** that processes 100+ emails at scale with efficient API rate limiting for **reliable performance**
 - **Customer Impact:** Designed **customer-focused subscription management platform** solving broadly defined email organization problems, **enhancing user productivity by 80%** through automated categorization that directly improves customer workflow experience.
- **Optimized Neural Network-Based Routing Protocol for VANETs** VANET, Machine Learning
Repository 08/2024 - 11/2024
 - **Optimization:** Developed a hybrid routing protocol for VANETs integrating Neural Networks and Reinforcement Learning, achieving a 20% reduction in latency and a 15% improvement in routing efficiency.
 - **Adaptability:** Designed and implemented a neural network-driven decision-making system to optimize routing in dynamic vehicular networks, demonstrating scalability and adaptability through real-time simulations.

SKILLS

- **Programming Languages:** Java, Python, JavaScript, TypeScript, SQL, React, React Native
- **Cloud & Distributed Systems:** AWS, Distributed Storage, Scalable Architecture, Fault-Tolerant Systems, Low-Cost Operations, Microservices, Large Distributed Computing, Prediction Systems
- **Technologies & Practices:** RESTful APIs, Database Systems, Performance Engineering, Agile Environment, Cross-disciplinary Collaboration, Managing Ambiguity, Innovation Development

EDUCATION

- **Netaji Subhas University of Technology** Delhi
Bachelor of Technology in Mathematics and Computing 2025
 - Relevant Coursework: Data Structures, Design and Analysis of Algorithms, Machine Learning, Software Engineering, Soft Computing, Computer Networks, Operating Systems, Scientific Computing, Theory of Automata, Optimization, Mathematical Statistics, Database Management System, Computer Architecture, Big Data Analytics

ACHIEVEMENTS

- Authored a **23-page research paper** on improving Grover's algorithm for quantum search optimization, leveraging IBM's Quantum Experience toolset for simulation and testing. Delivered 3+ on-campus presentations to faculty.
- Co-authored a **13-page journal article** on a hybrid VANET routing protocol using ANN and Reinforcement Learning, achieving improved PDR, latency, and throughput through multimetric optimization and simulations.