

# RAHUL SETHI

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## EDUCATION

**University of Illinois Urbana-Champaign**, Masters of Computer Science Aug 2024 - Dec 2025  
GPA: 4/4

**IIIT-Delhi**, B.Tech in Computer Science and Applied Mathematics July 2019 - June 2023  
GPA: **9.52/10**; **Institute Silver Medalist** for Departmental Rank 1

## SKILLS

<b>Languages</b>	C++/C, Java, C#, Python, Golang, SQL, R, Typescript, Javascript, Bash, Git,
<b>Full Stack</b>	Spring Boot, React.js, Node.js, .NET, RESTful, Redis, JUnit, Selenium, Mockito, MVC, OOP, Agile
<b>Distributed Systems</b>	Apache Spark, Cassandra, Apache Storm, Apache Kafka, Paxos, Consensus, RPCs, Multithreading
<b>Cloud &amp; DevOps</b>	Docker, Kubernetes, AWS, GCP, Github Actions, Jenkins, CI/CD
<b>Data Management</b>	MySQL, PostgreSQL, MongoDB, Hadoop
<b>Relevant Courses</b>	Distributed Systems, Cloud Storage Systems, Operating Systems, Database Systems

## WORK EXPERIENCE

**Tesla** *Fremont, CA*  
*Software Engineer Intern* May 2025 - August 2025

- Contributed to the initial architecture and development of customer and employee survey and feedback management tool leveraging **C#, .NET, React and MySQL** resulting in savings of **several 100k dollars** by replacing Qualtrics licenses.
- Set up pipelines and integrations with multiple internal teams, ensuring smooth data flow, feedback visibility, and adoption across the organization.
- Developed complex and dynamic question types to support flexible survey creation, enhancing configurability and overall user experience.

**Expedia** *India*  
*Software Development Engineer* August 2023 - July 2024

- Engineered a **distributed vulnerability management system** using **Java, Spring Boot, Javascript and AWS** to automate detection of host, container, and code vulnerabilities.
- Built a scalable, fault-tolerant centralized platform with **PostgreSQL** for data orchestration and **Redis** for real-time caching, reducing manual vulnerability tracking efforts by **76%** and increasing security compliance across multiple teams.
- Optimized the vulnerability lifecycle from detection to remediation in a distributed environment, leading to faster response times by 50% and improved security posture.
- Implemented **CI/CD** pipelines with **GitHub Actions** and **Jenkins**, automating deployments.

*Software Development Intern* May 2022 - July 2022

- Enhanced vulnerability management efficiency by integrating **Recoil** into the Singularity plugin, reducing resolution time by **30%**.
- Engineered a Delegation feature allowing leaders to delegate risk profiles to developers, improving project throughput and boosting on-time project delivery by **40%** over six months.

## PROJECTS

**Hybrid Distributed File System(HyDFS)**([link](#)) **C++, Hadoop, Cassandra**

- Designed and implemented a fault-tolerant distributed file system, combining **Hadoop's** block-based replication with **Cassandra's ring-based architecture** for high availability.
- Implemented **data sharding** and **multithreading**, reducing query latency by 40% and improving throughput for distributed storage.
- Integrated **data replication**, **eventual consistency**, and **partition tolerance** ensuring scalability while adhering to the **CAP theorem**.

**Git Analyzer: LangChain-Powered Semantic Search for Github** **RAG, LangChain, Python**

- Built an AI-powered GitHub QA tool using **LangChain, ChromaDB** for semantic search across public repositories.
- Implemented **AST-based preprocessing** to preserve code structure and documentation context.
- Developed a **hybrid dense and sparse retrieval pipeline** with RAG, enabling accurate, real-time QA across 15 languages.