

Riya Jain

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EDUCATION

University of Illinois at Urbana-Champaign

Urbana-Champaign, IL

Joint BS/MCS in Computer Science, Minor in Statistics — GPA: 3.98

Aug. 2022 – May 2026

- **Relevant Coursework:** Distributed Systems; Applied Parallel Programming; Algorithms & Models of Computation; Artificial Intelligence; Statistical Learning; Systems Programming; Data Structures; Databases; Bioinformatics; Linear Algebra; Numerical Methods; Computer Architecture; Discrete Structures
- **Extracurricular Activities:** Women in Computer Science (Corporate Outreach Chair); Disruption Lab (Engineering Manager); Illini Raas Competitive Dance Team; Jain Students Association

EXPERIENCE

IMC Trading

Chicago, IL

Software Engineering Intern — Pricing and Risk Team

June 2025 – Present

- Rearchitected the messaging infrastructure of a core pricing calculator to intelligently partition market parameter message streams, reducing network traffic by 66% and enhancing throughput across all strategy systems.
- Designed and deployed a real-time downsampling service that enabled latency-tolerant clients to consume lightweight pricing data via a dedicated broker, increasing overall system scalability and decentralizing workload.

Argonne National Laboratory

Champaign, IL

Machine Learning Developer Intern

Jan. 2024 – Present

- Researched, benchmarked, & deployed transformer and graph neural network-based models (e.g., AtomGPT, ALIGNN) for material property prediction on Gardens.AI, optimizing training pipelines for performance on large-scale datasets.
- Collaborated to expand Gardens.AI's scope as a scalable, domain-agnostic platform for scientific machine learning.

Susquehanna International Group (SIG)

Bala Cynwyd, PA

Software Engineering Intern

May 2024 – Aug. 2024

- Independently developed a fast-performing full-stack dynamic console complete with sorting, filtering, and grouping functionality to display aggregated risk measures and PnL computations for over 1.5 million options.
- Researched, implemented & optimized a cryptocurrency trading strategy with several rounds of backtesting.
- Attended daily lectures taught by software, trading, & quantitative research teams ranging from topics like game theory & hedging to platform optimization – providing foundational exposure to the field of quantitative trading.

Disruption Lab at the Gies School of Business

Champaign, IL

Engineering Manager

Dec. 2022 – Dec. 2024

- Spearheaded org-wide operational & growth initiatives like recruiting, client acquisition, & member engagement and oversaw the progress of 5+ project teams by facilitating client interactions and feedback management.
- Led a team of developers to create an aggregated data exchange interface between local hospitals & UIUC researchers using PrivateSQL and Differential Privacy, optimizing for patient protection & expedited data transfer.

Shedd Capital, LLC.

Chicago, IL

Software Engineering Intern

May 2023 – July 2023

- Contributed to a front-end migration from Django templates to Vue.js and Django REST, implementing 25% of page transitions while following agile and test-driven development practices.
- Improved data infrastructure by expanding a PostgreSQL database of 100K+ companies and optimizing an internal webcrawler, boosting webcrawl efficiency from 60% to 80% and enhancing full-text search by 130%.

PROJECTS

Fault-Tolerant Streaming & Storage Distributed System | Go, RPCs, Sockets

Aug. 2024 – Dec. 2024

- Designed and implemented a fault-tolerant distributed system featuring SWIM-based failure detection with 10 second completeness, a ring-based distributed file system with replication and caching, and a high-parallelism stream processing framework with exactly-once semantics & state recovery.

Los Angeles CrimeLens | React, Vite, SQL, Python, GCP, Typescript, Express, Auth0

Aug. 2023 – Dec. 2023

- Developed a map-based crime-reporting and visualization tool of LA crime with information about crime type, location, victim, etc. by employing advanced SQL queries, full CRUD functionality, and normalized DB design.

SKILLS

Languages: Python, C++, Java, C, Go, C#, JavaScript, HTML/CSS, SQL, Swift

Tools and Frameworks: React, Django, CUDA, RESTful APIs, AWS, Vue, Svelte, .NET, GCP, Docker, Unity, Figma, Git, PyTorch, Pandas, NumPy, Matplotlib, TensorFlow, AG Grid, Beautiful Soup, Selenium, Java FXGL

Spoken Languages: English, Gujarati, Spanish