

Riya Jain

848-667-3851 | riyajj2@illinois.edu | linkedin.com/in/riya-jain-uofi | github.com/riyaj5246 | riyajain.dev

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; Machine Learning Theory; Cloud Storage Systems; Advanced Performance Engineering; Algorithms & Models of Computation; Systems Programming; Data Structures; Databases; Linear Algebra; Numerical Methods; Computer Architecture
- **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 – Aug. 2025

- 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, optimized, and deployed transformer and graph neural network models (e.g., AtomGPT, ALIGNN) on Gardens.AI, scaling training pipelines for HPC clusters and large scientific datasets.
- Drove the expansion of Gardens.AI into a domain-agnostic platform by integrating emerging models (e.g., SIMG, Boltz-2, ESM-fold) and pioneering support for new tools such as TorchSim and MCP servers.

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.

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

GPU-Accelerated Convolution Forward Pass Optimization | CUDA, C++

Jan. 2025 – May 2025

- Optimized the forward pass of a convolutional neural network by overlapping data transfer with computation using multiple CUDA streams, accelerating matrix multiplication with Tensor Cores, and reducing memory usage with half-precision storage; profiled performance with NVIDIA Nsight tools to guide memory & performance improvements.

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.

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