

Jo Mohan

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EDUCATION

University of Illinois Urbana Champaign

Urbana, IL

Bachelor of Science in Computer Science and Mathematics, Minor in Business | GPA: 3.9

Dec 2026

- **Relevant Coursework:** Data Structures and Algorithms in C++, System Programming, Computer Architecture, Linear Algebra, Probability and Statistics, Numerical Methods, Applied Stochastic Processes

EXPERIENCE

Geneva Trading

May 2026 – August 2026

Quantitative Trading Intern

Chicago, IL

- Incoming Quantitative Trading Intern Summer 26

Capital One

May 2025 – August 2025

Software Engineering Intern

McLean, VA

- Boosted model accuracy by **6%** and cut training time **15%** by optimizing XGBoost with grid search
- Accelerated retraining cycles by **20%** through automated data validation and seamless Kubeflow integration
- Saved **\$50k annually** by automating persistent volume and PVC deletion with custom exit handlers
- Reduced debugging time by **40%** across **150 weekly runs** by designing a tagging system for Dask pods

Intel

May 2024 – January 2025

Security Software Engineer Intern

Folsom, CA

- Validated **1M+ packets** and **50K sessions** per server by testing network traffic tools on Linux servers
- Reduced manual SSL renewal time by **50%** by automating renewals for **3,000+** Palo Alto firewalls with Ansible
- Improved VPN reliability for **8,000+** users by deploying three VMware-based virtual environments

CAMPUS INVOLVEMENT

Disruption Lab @ Gies

January 2025 – August 2025

Software Engineer

Urbana, IL

- Enabled **95%** accurate event retrieval through a semantic search engine with OpenAI embeddings and PostgreSQL
- Supported **100ms** look-ups and **200+** daily users by configuring a real-time CRUD system
- Improved query performance by **40%** by optimizing database architecture with GCP and Supabase

Undergraduate Researcher

August 2023 – April 2024

Siebel Center of Computing and Data Science

Urbana, IL

- Directed a team of **12** to build Python static-analysis scripts, strengthening security testing across **4** LLMs
- Analyzed **13** LLM prompt outputs using custom fuzzing to uncover injection and key-logging vulnerabilities
- Reduced vulnerability detection time by **35%** through optimizing multiprocessing and caching techniques

PERSONAL PROJECTS

IMC Prosperity (International Trading Competition) | *Order Book Simulation, Backtesting*

- Delivered **11% alpha** by implementing statistical-arbitrage, Black-Scholes pricing, and mean-reversion strategies
- Achieved a **Top 3% global ranking** by optimizing latency and refining risk management across **5** asset classes
- Built a Python engine that processed live order book data to predict stock prices in a **2-week** simulated market

Clarity | *Python, FastAPI, Firebase, OpenAI API, Github API, Docker*

- Implemented a Chrome extension for GitHub to summarize pull requests and full repositories for new developers
- Built React chat widget embedded with Firebase Auth and Firestore for secure, real-time summarization

C++ Debugger | *C++, ClangAPI, OpenAI API*

- Created a static analysis tool, detecting memory leaks, undefined behavior, and seg faults before execution
- Optimized AST traversal, reducing error detection time by **40%** compared to Clang sanitizers

TECHNICAL SKILLS

Languages: Python, C++, Java, SQL, JavaScript, Bash

Frameworks: React, Node.js, FastAPI, Flask, Express, Kubernetes, Docker, Dask, XGBoost

Tools: Git, PostgreSQL, Supabase, GCP, AWS, Firebase, Kubeflow, Linux, VS Code

Interests: Self Managed Financial Portfolio (\$10,000), Poker, Entrepreneurship, Soccer, Running, Billiards