

Mohammad Pervaiz

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EDUCATION

Queens College, City University of New York

May 2027

Bachelor's in Computer Science

GPA: 3.8 / 4.0

Leadership: Former President, Code for All (2K+ members); IAC Fellow (1 of 20 nationwide; \$20K grant for an NPO)

EXPERIENCE

Bloomberg LP

June 2026 – August 2026

Software Engineering Intern (Returning)

New York, NY

Bloomberg LP

June 2025 – August 2025

Software Engineering Intern

New York, NY

- Built a production-grade Kafka-based CDC pipeline for 26K+ employees, replacing inefficient batch jobs
- Delivered IAM-guarded updates from 5+ upstream services by implementing batching in a distributed system
- Engineered exactly-once payload delivery guarantees via Kafka transactions to 3+ downstream ETL consumers
- Achieved monitoring coverage for all error paths by adding alerts via dashboards for logging and telemetry

Morgan Stanley

December 2024 – January 2025

Software Engineering Intern

New York, NY

- Expanded coverage for 10+ JSON fields in a validation REST API with schema checks before deprecation
- Prevented potential outages by blocking invalid payloads, ensuring data integrity for dependent trading systems
- Wrote unit tests for 20+ API endpoints and collaborated with compliance to meet regulatory requirements

People Inc

June 2024 – August 2024

Software Engineering Intern

New York, NY

- Shipped user-facing features for People.com (8M+ daily visits) and Entertainment Weekly (1M+ daily visits)
- Scaled site functionality for 270M+ monthly viewers, avoiding regressions by profiling ad-serving paths
- Standardized development across 40+ brands by integrating reusable components into People Inc's monorepo

PROJECTS

Multiplayer Game Server | C++, CMake, Winsock2, TCP Sockets, MinGW-w64

[GitHub](#)

- * Built a TCP multiplayer game with client threads, an authoritative server, real-time chat, votes, and roles
- * Designed a packet protocol for chat and votes with a thread-safe queue, socket I/O, and round updates
- * Set up CMake builds on Windows via Winsock2, clean shutdown, disconnect handling, and client recovery

In Memory Cache | Python, Gevent, TCP Sockets, Redis Serialization Protocol

[GitHub](#)

- * Achieved 7.1K ops/sec under load, sustaining 6K+ ops/sec with up to 20 concurrent workers
- * Optimized request path for 0.26ms avg GET latency and 0.34ms avg SET latency in single-threaded tests
- * Implemented RESP over TCP sockets with async networking, supporting GET, SET, TTL, and AOF persistence

SKILLS

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

Technologies: Kafka, Redis, PostgreSQL, MongoDB, FastAPI, Docker, Linux, Git, Grafana, Humio

Interests: Distributed systems, Networking, Infrastructure