

Mohammad Pervaiz

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EDUCATION

Queens College, City University of New York Bachelor's in Computer Science Leadership: Former President, Code for All (2K+ members); IAC Fellow (1 of 20 nationwide; \$20K grant for an NPO)	May 2027 GPA: 3.8 / 4.0
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EXPERIENCE

Bloomberg LP Software Engineering Intern (Returning)	June 2026 – August 2026 New York, NY
Bloomberg LP Software Engineering Intern	June 2025 – August 2025 New York, NY
<ul style="list-style-type: none">Built a production-grade Kafka-based CDC pipeline for 26K+ employees, replacing inefficient batch jobsDelivered IAM-guarded updates from 5+ upstream services by implementing batching in a distributed systemEngineered exactly-once payload delivery guarantees via Kafka transactions to 3+ downstream ETL consumersAchieved monitoring coverage for all error paths by adding alerts via dashboards for logging and telemetry	
Morgan Stanley Software Engineering Intern	December 2024 – January 2025 New York, NY
<ul style="list-style-type: none">Expanded coverage for 10+ JSON fields in a validation REST API with schema checks before deprecationPrevented potential outages by blocking invalid payloads, ensuring data integrity for dependent trading systemsWrote unit tests for 20+ API endpoints and collaborated with compliance to meet regulatory requirements	
People Inc Software Engineering Intern	June 2024 – August 2024 New York, NY
<ul style="list-style-type: none">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 pathsStandardized 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
<ul style="list-style-type: none">Built a TCP multiplayer game with client threads, an authoritative server, real-time chat, votes, and rolesDesigned a packet protocol for chat and votes with a thread-safe queue, socket I/O, and round updatesSet 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
<ul style="list-style-type: none">Achieved 7.1K ops/sec under load, sustaining 6K+ ops/sec with up to 20 concurrent workersOptimized request path for 0.26ms avg GET latency and 0.34ms avg SET latency in single-threaded testsImplemented 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