

# Riad Mukhtarov

+994(50)-899-8676 | [riadmukh@gmail.com](mailto:riadmukh@gmail.com) | [LinkedIn](#) | [Portfolio](#)

## EDUCATION

**University at Buffalo, New York - BS in Computer Science**

Aug 2020 – May 2024

*Awards: Undergraduate Teaching Assistant Award, Multiple Dean's List Honors*

*Buffalo, New York*

## EXPERIENCE

**Information and Communication Technology (ICT) Assistant**

Oct 2024 – Nov 2024

*COP29 United Nations Climate Change Conference*

*Baku, Azerbaijan*

- Supported ICT operations for 500+ UN delegates by managing core network, AV, and collaboration systems
- Resolved hybrid session issues in real time, preventing delays and ensuring smooth communication
- Improved system security through stronger access controls, device hardening, and data handling practices
- Deployed and optimized hardware and software with vendors, increasing reliability and reducing repeat issues

**Head Teaching Assistant - Data Structures**

Aug 2022 – May 2024

*State University of New York at Buffalo*

*Buffalo, New York*

- Led data structures instruction (asymptotics, graphs, trees, hashing) in Scala/Java for 1,000 students
- Managed 20 TAs, coordinated labs/exams, and served as the primary liaison between students and faculty
- Built and graded assignments, quizzes, and exams while enforcing academic integrity standards
- Ran weekly reviews and debugging sessions, supporting 200+ students with hands-on help
- Streamlined course logistics and student support workflows to improve consistency and outcomes

**Software Engineer**

Sep 2021 – May 2023

*EZ Pro Billing and Collection Inc.*

*New York, New York*

- Engineered Python/MongoDB TCP handler and ADA-compliant HTML/CSS/JavaScript, using Agile practices
- Automated team point allocation through dynamic login and registration system, upon successful task completion
- Leveraged WebSockets for real-time chat, reducing workload by 90%, earning promotion

## PROJECTS

**MatchSentinel** *GitHub* | *Java, Spring Boot, RabbitMQ, PostgreSQL, Liquibase, React, TypeScript, Docker* Jan 2026

- Built a fraud pipeline with REST APIs and RabbitMQ across AI, rules, cases, notifications, and reporting
- Implemented per-service persistence with Liquibase and idempotent reporting updates for reliable event handling
- Delivered a live analyst dashboard with filters, drill-downs, and a pipeline simulator for end-to-end flow

**FinFlow Wallet API** *GitHub* | *Java, Spring Boot, Spring Security, JWT, MySQL, JPA, JUnit*

Jan 2026

- Implemented secure RESTful authentication and authorization using JWT-based stateless sessions
- Designed and optimized relational data models with JPA/Hibernate and authored SQL-backed repository queries
- Applied security practices including password hashing, token expiration, and request-level authentication filtering
- Developed integration tests to validate login, token issuance, and protected endpoint access

**Raft-based Consensus Algorithm** | *Go, UDP, Protobuf*

May 2024

- Implemented a Raft-based algorithm, managing leader election, log replication, and state machine transitions
- Engineered fault-tolerant consensus protocol for enhanced system fault tolerance and consistency across the cluster
- Developed and tested the Raft server to handle concurrent operations and client interactions efficiently

**Distributed Hash Table** | *Go, TCP, Protobuf*

Feb 2024

- Built a peer-to-peer storage system using Kademlia routing for  $O(\log n)$  node lookups
- Optimized data reliability with a recursive search algorithm to maintain dynamic network connectivity
- Designed a Protobuf-based message protocol for high-performance data retrieval across multiple platforms
- Integrated and tested nodes to ensure scalability and consistency in simulated distributed environments

## TECHNICAL SKILLS

**Programming Languages:** Java, Python, Go (*familiar:* Rust, JavaScript, Scala, C, PHP)

**Backend Development:** Spring Boot, FastAPI, RESTful APIs, JWT Authentication, RabbitMQ

**Databases & SQL:** MySQL, PostgreSQL, MongoDB, JPA/Hibernate, Liquibase, SQL Query Design

**Systems & Infrastructure:** Linux, Git/GitHub, Docker, Testcontainers, CI/CD basics, SSH