

Riad Mukhtarov

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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 Communication Technology 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

- Taught asymptotic analysis, sequences, graphs, trees, hash tables, and more in Scala/Java to about 1000 students
- Managed 20 TAs, coordinated course logistics, and acted as the primary liaison between students and faculty
- Monitored and graded assignments, exams, and quizzes as well as check them for ethics and integrity
- Conducted reviews weekly, debugging and troubleshooting assistance in Scala/Java for almost 200 students
- Improved course logistics and helped create a supportive learning environment

Teaching Assistant - Multiple CS Courses

Aug 2022 – May 2024

State University of New York at Buffalo

Buffalo, New York

- Supported instruction in Web Apps, Software Quality, Comp Org, Discrete Structures, and Intro to CS
- Monitored lab, midterm and final exams to ensure ethical academic excellence
- Manually tested the code of 400+ students to secure flexibility of examining the software
- Led multiple labs to efficiently deliver the course material to the students

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 Web-Sockets for real-time chat, reducing workload by 90%, earning promotion

PROJECTS

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 RaftM 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:* JavaScript, Scala, C)

Backend Development: Spring Boot, Spring Security, RESTful APIs, JWT Authentication

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

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