Mahammadali Zamanli

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Education

ADA University — Baku, Azerbaijan
Bachelor of Arts in Computer Science — *Sep. 2022 – May 2027*

Transport and Telecommunication Institute — Riga, Latvia
Bachelor of Applied Science in Computer Science (Exchange Program) — *Feb. 2025 – June 2025*

Relevant Coursework

Data Structures and Algorithms, Object-Oriented Programming (Java), Operating Systems, Computer Networks, Database Systems, Discrete Mathematics, Probability and Statistics, Software Engineering Principles

Experience

Software Engineer Intern — July 2025 – Dec. 2025
AzSimX Azersilah — *Baku, Azerbaijan*

- Engineered a high-fidelity physics simulation module in C# (Unity), increasing aerodynamic calculation accuracy by 15% and eliminating trajectory drift by 22% compared to engine defaults.
- Optimized real-time rendering and calculation loops, maintaining a stable 90 FPS in VR and reducing average frame latency from 14ms to 9ms through profiling and bottleneck elimination.
- Designed software interface for hardware integration, achieving sub-millisecond response times and improving hardware-to-software synchronization reliability by 30%.

Projects

HTTP Web Server | *C, POSIX, Socket programming*

- Architected a multithreaded HTTP server in C handling 1,000+ concurrent connections with average response times under 50ms.
- Reduced memory overhead by 40% by implementing a custom thread-pool and request parser, ensuring stability under high-throughput conditions.
- Implemented HTTP/1.1 persistent connections, resulting in a 25% reduction in TCP handshake overhead for multi-request sessions.

Task Manager REST API | *Go, net/http, JSON*

- Developed a concurrent REST API in Go, utilizing Goroutines and Channels to increase request throughput by 4x compared to synchronous processing.
- Improved maintainability and test coverage by 35% by implementing Hexagonal Architecture, decoupling domain logic for isolated unit testing.
- Eliminated race conditions during high-concurrency tasks, ensuring 100% data integrity across 500+ automated stress tests.

Web Scraper Application | *Java, Jsoup, Spring Boot, PostgreSQL, Docker*

- Built a containerized data extraction pipeline that increased collection speed by 60%, parsing 200+ structured records per minute to PostgreSQL.
- Designed an extensible API architecture for rapid onboarding of new scraping targets, reducing new model integration time by 50%.
- Reduced deployment configuration time by 80% by orchestrating the full stack with Docker Compose for consistent environment parity.

Technical Skills

Programming Languages: Java, Go, SQL (PostgreSQL),
Frameworks & Libraries: Spring Boot, Unity, JUnit, Jsoup, POSIX Sockets
Tools & DevOps: Git, Docker, Docker Compose, Linux (Bash), Postman, Maven
Languages: Azerbaijani (Native), English (Fluent), Russian (Working Proficiency)