

Mohammad Mossa

COMPUTER SCIENTIST

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Summary

B.Sc. Computer Science graduate with over **3 years of professional experience** in software engineering, specializing in game development. I have a proven track record of delivering high-quality software solutions, particularly in network and gameplay programming. My strong background in Math and Physics, acquired through my degree, complements my technical skills.

My journey in game development began in 2016 with Unity, where I honed my foundational skills. In 2017, I transitioned to Unreal Engine and have been leveraging its capabilities ever since. My self-taught expertise in game development underscores my ability to quickly learn and adapt to new technologies and challenges. To date, two games I worked on were successfully released.

Work Experience

Generalist Software Engineer

The New Face (Remote)

IMMERSIVE E-COMMERCE EXPERIENCES

Jul 2024 - Feb 2025

- Resolved complex **cloud-side race conditions** in a distributed, multi-user environment, improving platform stability.
- Addressed **session pairing inconsistencies** by identifying architectural flaws and proposing resilient solutions.
- Upgraded and integrated the **NVIDIA GeForce Now SDK**, including restoring and validating messaging and communication systems.
- Optimized input handling for mobile users, ensuring compatibility with virtual keyboards and platform constraints.
- Automated SDK integration into build pipelines, eliminating manual steps in CI workflows.
- Customized core plugin behavior to meet product requirements, particularly around loading and streaming user experiences.
- Refactored major components of the codebase to improve **scalability**, readability, and developer onboarding.
- Worked closely with **NVIDIA's developer portal** and related tools to troubleshoot deployment issues.
- Provided cross-functional guidance on system design and SDK adoption.

Junior Software Engineer

CI Games (Remote)

LORDS OF THE FALLEN

Dec 2022 - Jun 2024

- Led the development of several real-time and distributed systems, including:
 - Session Management:**
 - ★ Redesigned user pairing logic and latency-based matching using custom networking protocols.
 - ★ Implemented event-specific access control with custom key logic.
 - ★ Resolved latency and synchronization anomalies across client-server boundaries.
 - Data Serialization:** Engineered and optimized serialization of complex data types for reliable synchronization.
 - System Sync:** Improved state consistency for dynamic content loading, user movement, persistence, and user interface.
 - Diagnostics:** Developed automated tools to detect redundant data synchronization and reduce unnecessary network traffic.
- Utilized performance analysis and data compression tools to optimize bandwidth and CPU usage.
- Proposed and implemented architectural changes that improved **server scalability** and reduced data synchronization overhead.

Software Engineering Intern

NOWWA (Remote)

BULLETVILLE

Jan 2022 - May 2022

- Developed modular systems for camera spectator and replay, aligned with user testing feedback.
- Supported internal documentation and style guide creation to improve **code maintainability**.
- Contributed to user interface logic and system configuration layers.

Software Engineering Intern

AXC Games (Remote)

ANAREA BATTLE ROYALE

Jul 2019 - Aug 2020

- Designed core subsystems for resource management, inventory, movement, and state models.
- Integrated telemetry and analytics through third-party APIs.
- Resolved synchronization issues to ensure seamless multi-user experiences.
- Participated in team-wide debugging and code review processes.

Skills

Industry Knowledge	Software Engineering, Network Programming, Gameplay & Systems Programming, Systems Design, Cloud Integration
Programming	C/C++, C#, Java, Dart, Python, Squeak/Smalltalk
Software	Unreal Engine, Unity, Perforce, Git, Plastic SCM, TortoiseSVN
Languages	Arabic (native), English (C1), Hebrew (C1)

Education

Technion - Israel Institute of Technology

Haifa, Israel

B.Sc. IN COMPUTER SCIENCE

Mar 2020 - Mar 2025

- Took key courses including but not limited to: Operating Systems, Algorithms, Data Structures, Introduction to Computer Networks, Android Development.
- Worked as an Academic Tutor for courses including: Introduction to Computer Science, Combinatorics for CS, and other introductory math and physics courses.
- Dean's Excellence List.

Projects

Android Application

Technion, Haifa, Israel

YALLA NEGEV

Summer 2024

- Developed an Android application that aims to collect reliable data about service availability in the Negev region to advocate for government support.
- Implemented key features such as **user registration/authentication**, **data submission**, and push notifications.
- Set up the **Firebase/Firestore database** to enable seamless communication between the app and the backend.
- Designed a user-friendly interface for data collection and visualization.
- Conducted user testing and feedback collection to improve application usability.
- **Technologies:** Flutter, Dart, TypeScript, Firebase & Firestore.
- Project accepted for presentation at **IEEE** (2025).

Internet of Things Project

Technion, Haifa, Israel

PERSONAL TRACKING BOARD

Winter 2024

- Developed an IoT-based personal tracking board that helps track the progress of user-created assignments per board user.
- Implemented **NTP clock synchronization** to ensure accurate timekeeping across the board.
- Handled HTTP requests to the Firestore database to **synchronize data** and display accurate assignment status on the board.
- Utilized **multithreading** on the ESP32 to perform HTTP requests on a separate thread, ensuring the display of the board never hangs.
- **Technologies:** C, ESP32, Arduino, HTTP & NTP Protocols.

Honors & Certificates

2014	3rd Place, awarded 50% Technion tuition scholarship , Madatech, Technion, and U.S. Embassy – National Aerospace Olympiad	Haifa, Israel
2017	Cyber Camp Graduate , Technion – Israel Institute of Technology	Haifa, Israel

Other Activities

- During 2022 I launched wizardcell.com where I have been writing Unreal Engine articles. The site has become a popular resource within the community with 1k unique visitors a month.
- I took part in #notGDC 2023, a free online "un-conference", where I gave a talk on "Unreal Online Multiplayer Tips and Tricks".