

Ilkin Mammadli

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Education

Georgia Institute of Technology | Atlanta, GA

August 2022 – Dec 2026

Bachelor of Science in Computer Science

Dean's List, Faculty Honors

Coursework: OOP, Data Structures and Algorithms, Design and Analysis of Algorithms, Artificial Intelligence, Information Visualization, Computer Graphics, Statistics

Experience

GT Extended Reality Club

August 2022 – Present

Co-President, Director of Partnerships, Team Lead

- Leading an executive board of 10 members, overseeing operations, organizing events, and managing partnerships. Expanded membership from 100 to 300+ members through engaging more students with XR.
- Co-hosted the world's largest, by participants, XR hackathon (ImmerseGT) in the world with 20,000\$ in prizes. Personally hosted an "XR App in 1 hour" workshop for 400 participants and mentored award-winning teams.
- Mentored and led teams in developing XR projects with OpenXR and Unity for Meta Quest, such as VR Graphing Calculator, MR Space Simulator, and Web-Spatial (supported by PicoXR)

Georgia Tech Office of Information Technology

August 2024 – January 2025

XR Developer

- Worked with a team to develop educational VR experiences for Microsoft Mesh using the Unity engine and Microsoft's visual and cloud scripting.
- Collaborated closely with Professors from the GT School of Physics to develop physics lab simulations to be later presented to students and faculty across Georgia Tech.

Georgia Tech CS 1331 - Object-Oriented Programming

January 2023 – May 2024

Teaching Assistant

Atlanta, GA

- Led weekly recitations of 50+ students, teaching Java and OOP principles and practices. Graded assignments and exams of the student body comprised of over 500+ students.
- Held office hours, effectively solved students' problems, and clearly answered technical and theoretical questions.

Projects

Vast Engine | C++, OpenGL, GUI Programming

- Designed and developed a cross-platform game engine tailored for graphics-intensive 2D/3D applications.
- Leveraged C++ and OpenGL for high-performance graphics rendering and employed GLFW for seamless cross-platform window output.
- Implemented an efficient Event System, a Batch Renderer for optimized graphics processing, an Entity Component System for modularity, and Native Scripting for flexibility.
- Empowered Georgia Tech's HyperJackets Hyperloop team of over 50 members by serving as the foundation for their Dashboard and Control Center display.

Flashys | Unity, C#, Java, MongoDB

- Co-developed a mobile application for a hackathon, enabling tattoo artists to showcase their work and allowing customers to browse and schedule appointments effortlessly.
- Solely developed the tattoo preview mode using Unity and AR Foundation, enabling users to visualize tattoos on their bodies via their phone cameras.
- Integrated the AR preview feature with the Java and MongoDB backend of the application.

Spotify Wrapped | Python, Django, Spotify Web API, HTML/CSS, Heroku

- Collaborated with a team to build a full-stack web app using Python (Django) and HTML/CSS that visualizes users' top artists, songs, and genres from Spotify; deployed on Heroku for public access.
- Integrated the Spotify API for authentication and user data retrieval to generate personalized music insights.

Skills

Languages: C#, Java, Python, C, C++, Rust, JavaScript, HTML/CSS

Technologies: Git/GitHub, React.js, Django, Flask, Firebase, MongoDB, MSSQL, Node.js, OpenGL, WebGL, OpenCV, Unity

Concepts: Data Structures and Algorithms, XR Development, Real-Time Software Dev, Graphics/GUI Programming, Computer Vision, Web App Dev, Mobile App Dev