ALI SHAHIDI

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SUMMARY

Multidisciplinary software developer specializing in Unity, C#, C, and XR technologies. Proficient in developing games, AR/VR applications, and optimizing performance. Proven leadership in delivering projects such as a customer service scenario simulation tool and interactive educational platforms, incorporating real-time data processing and privacy management. Adept at enhancing user engagement and delivering seamless, high-quality cross-platform solutions.

PROFESSIONAL EXPERIENCE

Software Developer *September 2024 - May 2025*
ETHEREAL Research Group Calgary, AB

- Incorporated and implemented AI-driven real-time behavioral analysis, boosting video analysis speed by 90% and accuracy by 83% with local algorithms.
- Optimized performance by reducing third-party API costs by 98% through adaptive frame rate control and delta-based body language analysis.

Software Developer - Protégé *September 2024 - March 2025*
ELIXR & Illumia Calgary, AB, Remote

- Contributed to 5 cross-functional projects, delivering a scalable solution for VR/AR experiences. focusing on areas such as animation, lip-syncing, AI integration, performance tuning, real-time audio streaming, real-time Speech-to-Text processing, and interactive WebXR, Mobile, VR/AR, and PC experiences.
- Led and mentored a new intern by explaining code architecture, guiding implementation steps, and coordinating tasks through weekly sync meetings.

Software Developer - Internship *February 2024 - August 2024*
Telus Calgary, AB

- Collaborated with Telus Communications to develop a cross-platform AR application for iOS and Meta Quest 2.
- Engineered multiplayer functionality with NetCode and spatial anchor integration for AR app on iOS/Meta Quest 2.

Graduate Research & Teaching Assistant - Software Engineer *January 2021 - April 2024*
University of Calgary Calgary, AB

- Led a study on assistive XR technology in collaboration with psychologists and professionals.
- Provided Unity support during a 2-day IEEE Tech-Hackathon (SIGHT).
- Delivered courses on Software Engineering, OOP, Scalable Data Analysis, and Programming Fundamentals.

EDUCATION

University of Calgary *April 2024*
Master of Software Engineering (GPA: 4/4.00) Calgary, AB

- Received full departmental graduate funding and international graduate tuition award.
- Nominated for the Best Graduate Project at the Distinguished Master's Thesis Award in STEM Disciplines.

University of Tehran *July 2020*
B.Sc. in Computer Engineering (GPA: 17.24/20.00) Tehran, Iran

- Received the best undergraduate project, and two Faculty of Engineering Fellowship Awards.

PROJECTS

ETHEREAL Research Group | Unity, C#, AI, Azure, API, VR/AR/Tablet, Python ⭘

- Built a cross-platform real-time video analysis app for tablets and Quest 3, enabling multimodal (text, video, voice, image) input processing.
- Designed a server-based AI pipeline to offload VR computation and support large-file chunking for efficient, reliable data transmission.

ELIXR & Illumia | Unity, C#, Network, Optimization, VR, Azure ⭘

- Built real-time audio system with always-on mic and event-driven responses in Unity.
- Built AI-driven animation system using third-party APIs to reflect user emotions.
- Enhanced Unity flight simulator with realistic procedures and optimized NetCode multiplayer.
- Improved performance via Profiler, GPU Instancing, Static Batching, Occlusion Culling, and Object Pooling.
- Real-time data streaming enabled with WebSocket integration in Unity.
- Refactored and scaled codebases for projects including flight simulators, training tools, and virtual assistants.

Telus | Unity, Unity 3D, NetCode, Azure ⭘

- Led the development of a multiplayer Augmented Reality application with Telus Communications, featuring NetCode, mapping, mesh rendering, animation, and interactions.
- This project will reduce transportation costs and enable remote instruction, enhancing efficiency and user privacy.

HoloType | Unity, C#, MRTK, Scrum ⭘

- Designed and led development of *HoloType*, a modular 3D AR educational app for HoloLens 2.
- Integrated photon-based multiplayer, improving the user experience by 25%.
- Conducted iterative user studies, enhancing usability and reducing caregiver support needs by 35%.
- Added customization features, increasing user satisfaction by 20%.
- Project secured additional funding and led to three published papers.

Complete C# Unity Game Developer 3D Course | Unity, C# ⭘

- Engineered realistic terrains, timeline animations, and applied post-processing effects in Unity; optimized pathfinding algorithms and grid systems to enhance gameplay experience and performance.
- Leveraged Unity's powerful features, including particle system and Cinemachine, to create visual effects and captivating game sequences.

SKILLS

Languages: C#, Unity, Unity 3D, C, C++, Python, JavaScript

Frameworks: Express.js, React.js

Databases: PostgreSQL, MySQL, SQL

Operating Systems: Linux, Windows

Tools: Git, ClickUp, Docker, ARKit, ChatGPT, Cursor, Scrum, Jira, Confluence, LaTeX

Unity Development Platforms: Mobile (iOS/Android), PC, AR, VR

CERTIFICATIONS

Programming Design Patterns For Unity: Write Better Code | Udemy   *July 2024*
The Beginner's Guide to Animation in Unity | Udemy   *June 2024*
The Complete Web Development Bootcamp | Udemy   *January 2024*
Unity C# Mobile Game Development: Make 3 Games From Scratch | Udemy   *October 2023*
Complete C# Unity Game Developer 3D | Udemy   *September 2023*