Kamran Gholizadeh HamlAbadi

PhD Candidate | Agentic AI & Multi-agent Researcher | Digital Twin & Neural 3D Reconstruction & Physical Simulation

School of Electrical Engineering and Computer Science, University of Ottawa, Ottawa, ON, Canada

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Google Scholar | ACM Author Profile | ORCID: 0000-0002-4732-4745

Google Scholar: 250 citations · h-index: 8 · i10-index: 8 (as of May 2026)

Research Profile

I am a PhD candidate in Electrical and Computer Engineering at the University of Ottawa, conducting research at the intersection of **agentic AI systems**, **physical Digital Twins**, **neural 3D reconstruction**, and **multimodal human–AI interaction**. My doctoral work spans two deeply connected research programmes.

The first, my dissertation *CARE-AI: Coordinated, Agentic, Robust, Emotion-Aware AI*, builds an emotion-aware Digital Twin framework for personalized well-being coaching, integrating multimodal sensing, multi-agent orchestration (A2A Protocol, MCP), and NVIDIA Omniverse-based interactive avatars. The second, the *NemoForge* project, addresses a fundamental gap in neural reconstruction pipelines: high photometric accuracy does not guarantee physical validity. NemoForge is a **post-reconstruction physical rehabilitation framework** — a simulator-in-the-loop Reason-Act-Reflect (RAR) agentic loop powered by NVIDIA Isaac Sim and a frontier LLM reasoning agent — that corrects floating geometry, interpenetrating meshes, and non-manifold surfaces *post-reconstruction* while preserving visual fidelity, guided by a **learned stopping policy** trained via behavioural cloning.

I have 250 citations and an h-index of 8 (Google Scholar, May 2026). My work has appeared in ACM Multimedia (Rank A*), ACM TOMM (Rank A), IEEE MeMeA, ACM IMX, and multiple Springer and Elsevier volumes. I serve on the IEEE Metaverse Newsletter and ACM SIGMM Record editorial boards, and am a member of ACM, ACM SIGGRAPH, and ACM SIGMM.

Research Interests: Agentic AI • Physical Digital Twins • Neural 3D Reconstruction • Physics-Informed Simulation & Real-to-Sim Transfer • LLM Reasoning Agents • Embodied AI • Multimodal Human–AI Interaction • Emotion-Aware Computing • Computer Vision • Immersive XR

Education

University of Ottawa — Ottawa, ON, Canada — Sep. 2022 – Present (Expected 2026)

Ph.D. in Electrical and Computer Engineering

- **Thesis Research (CARE-AI):** *Coordinated, Agentic, Robust, Emotion-Aware AI* — a unified framework for emotion-aware Digital Twin coaching integrating multimodal sensing, multi-agent orchestration, and adaptive well-being monitoring.
- **Thesis Research (NemoForge):** *Post-Reconstruction Physical Rehabilitation of Neural 3D Scenes via Simulator-in-the-Loop Reasoning with Adaptive Convergence* — correcting physics violations in NeRF/3DGS/DUSt3R reconstructions using an LLM-based RAR agent, NVIDIA Isaac Sim (PhysX), and a learned behavioural-cloning stopping policy; introducing the RFPCR metric.
- **Supervisor:** Professor Abdulmotaleb El Saddik (IEEE/ACM/EIC Fellow), MCRLab
- **Lab:** Multimedia Communications Research Laboratory (MCRLab)

Islamic Azad University — Qazvin, Iran — Sep. 2011 – Sep. 2015

M.Sc. in Information Technology Engineering

- **Thesis:** *Recommender Systems Performance in NFC Tags*
- **Supervisor:** Prof. Mehdi Dehghan; **Advisor:** Prof. Mohammad Reza Meybodi (Amirkabir University of Technology)

Mazandaran Institute of Technology Babol, Iran Feb. 2007 – Sep. 2009
B.Sc. in Computer Engineering — Software

Research Experience

Doctoral Research — MCRLab, University of Ottawa

Multimedia Communications Research Laboratory (MCRLab) Ottawa, Canada Sep. 2022 – Present
Research Assistant & PhD Researcher

Strand A — CARE-AI: Emotion-Aware Agentic Digital Twins

- Designed **CARE-AI**, an emotion-aware Digital Twin framework integrating multimodal sensing, agentic reasoning, and adaptive well-being monitoring for human performance coaching.
- Architected **multi-agent AI systems** using the Agent-to-Agent (A2A) Protocol and Model Context Protocol (MCP) for real-time posture analysis, emotion recognition, and embodied feedback delivery.
- Engineered **Digital Twin environments** in NVIDIA Omniverse, OpenUSD, and Audio2Face with XR pipelines for interactive avatar-based human–AI interaction.
- Built **multimodal AI pipelines** fusing computer vision (MediaPipe, OpenFace), speech-based emotion models, and wearable biosignals for personalized coaching.
- Integrated frontier LLMs (GPT, LLaMA, Gemini, Groq) with **CrewAI orchestration** for tool-augmented reasoning, planning, and adaptive user feedback.
- Implemented real-time human-in-the-loop interfaces; optimized agent performance via **NVIDIA AgentIQ** and LangSmith observability tooling.

Strand B — NemoForge: Physical Rehabilitation of Neural 3D Scenes

- Developing a **post-reconstruction physics rehabilitation framework** to bridge the gap between photometric accuracy and physical simulation validity in neural reconstruction pipelines (NeRF, 3DGS, DUSt3R).
- Implemented a **Physics Critic** in NVIDIA Isaac Sim (true PhysX) detecting floating objects, interpenetrating meshes, and non-manifold surfaces via structured failure reports (penetration depth, settle velocity, non-manifold ratio, floating offset).
- Designed a **Reason-Act-Reflect (RAR) agentic loop**: LLM reasoning agent generates targeted correction actions (translate, snap-to-support, convex-hull recompute, non-manifold repair) guided by Physics Critic state.
- Introduced a **learned stopping policy**: a 2-layer MLP trained via behavioural cloning on a 9-dimensional Physics Critic state vector, replacing heuristic fixed guardrails with a scene-adaptive convergence criterion — the first such approach in the physics correction literature.
- Proposed **RFPCR** (Reconstruction-Fidelity-Preserving Correction Rate): a novel metric jointly measuring physics improvement under a bounded visual fidelity constraint (SSIM/PSNR threshold $> 1 - \delta$).
- Conducted 3D scene reconstruction from iPhone LiDAR data using **NeRF/Nerfacto** and NVIDIA Omniverse pipelines for immersive XR content generation; published at I2M-MM '25 and APP3DV '25.

Prior Research Experience

Young Researchers and Elite Club / IoTDigitCorp Qazvin & Tehran, Iran Oct. 2015 – 2022
Researcher

Supervisor: Professor Ali Mohammad Saghiri (Amirkabir University of Technology)

- Designed and evaluated **Digital Twin models** for healthcare applications: cancer monitoring, migraine management, allergy tracking, and nutrition guidance; resulted in three Elsevier book chapters (2023).
- Authored surveys on **blockchain-based healthcare systems**, cognitive IoT architectures, and decentralized identity (KYC) frameworks.
- Developed **cognitive recommender systems** for IoT environments.

Graduate Research, Qazvin Islamic Azad University Qazvin, Iran Sep. 2012 – Sep. 2015
Research Assistant

Supervisors: Prof. Mehdi Dehghan & Prof. Mohammad Reza Meybodi (Amirkabir University of Technology)

- Investigated **Near Field Communication (NFC)** and context-aware recommender systems; designed a Business Intelligence (BI) system with .NET and Microsoft SQL Server.
- Applied machine learning (K-means clustering, neural networks) to financial and accounting data analysis.

Teaching Experience

University of Ottawa — Ottawa, Canada — Jan. 2025 – Present
Part-Time Professor

- **ITI 1121 — Introduction to Computing II (Java):** Full lecture delivery, exam design, grading, and student mentorship for undergraduate students.

University of Ottawa — Ottawa, Canada — Jan. 2023 – Present
Teaching Assistant

- **Courses:** Real-Time Systems • Computer Architecture I • Project Management • WWW Structures • Cloud Technologies • Software Engineering Capstone Project.
- Lab facilitation, tutorial sessions, student office hours, marking, and course material development.

Mazandaran Institute of Technology — Babol, Iran — Feb. 2008 – Jun. 2008
Teaching Assistant

- **Special Topics in C#** (undergraduate level).

Coffee Innovation — Tehran, Iran — Aug. 2018 & Sep. 2019
Guest Lecturer

- Distributed Ledger Technology, Blockchain, and Stellar Platform (Sep. 2019).
- AI, IoT, and Blockchain: State-of-the-Art Research Review (Aug. 2019).

Publications

Total citations: 249 · h-index: 8 (Google Scholar, May 2026). *ACM Author Profile* *Google Scholar*

Journal Articles

[J1] **Gholizadeh HamlAbadi, K.**, Laamarti, F., & El Saddik, A.
Meta-Review on Brain-Computer Interface (BCI) in the Metaverse.
ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM), vol. 20, no. 12, Article 395, pp. 1–42, 25 November 2024. [*CORE Rank A*] [*Cited by 26*] [2,098 full-text downloads]
doi:10.1145/3696109

Book Chapters

[B1] **Gholizadeh HamlAbadi, K.**, Vahdati, M., Saghiri, A.M., & Gholizadeh, K.
Digital Twins for Allergies.
In: *Digital Twin for Healthcare: Design, Challenges, and Solutions*, ed. El Saddik, A. Elsevier, 2023, pp. 325–346. [*Cited by 8*]

[B2] Saghiri, A.M., **Gholizadeh HamlAbadi, K.**, & Vahdati, M.
Applications of Digital Twins to Migraine Disease.
In: *Digital Twin for Healthcare: Design, Challenges, and Solutions*, ed. El Saddik, A. Elsevier, 2023, pp. 283–304. [*Cited by 3*]

[B3] Vahdati, M., Saghiri, A.M., & **Gholizadeh HamlAbadi, K.**
Digital Twins for Nutrition.
In: *Digital Twin for Healthcare: Design, Challenges, and Solutions*, ed. El Saddik, A. Elsevier, 2023, pp. 305–323. [*Cited by 2*]

[B4] Vahdati, M., **Gholizadeh HamlAbadi, K.**, & Saghiri, A.M.
IoT-Based Healthcare Monitoring Using Blockchain.

In: *Applications of Blockchain in Healthcare*, Studies in Big Data, vol. 83. Springer, Singapore, 2020, pp. 141–170. [*Cited by 42*]

[B5] Saghiri, A.M., **Gholizadeh HamlAbadi, K.**, & Vahdati, M.
The Internet of Things, Artificial Intelligence, and Blockchain: Implementation Perspectives.
In: *Advanced Applications of Blockchain Technology*, Studies in Big Data, vol. 60. Springer, Singapore, 2019, pp. 15–54. [*Cited by 24*]

Refereed Conference Papers

[C1] **Gholizadeh HamlAbadi, K.**, Vahdati, M., Laamarti, F., & El Saddik, A.
Agent-to-Agent (A2A) Protocol Integrated Digital Twin System with AgentIQ for Multimodal AI Fitness Coaching and Personalized Well-Being.
33rd ACM International Conference on Multimedia (MM '25), Dublin, Ireland, 2025, pp. 12483–12491. [*CORE Rank A**] [*Cited by 2*]
doi:10.1145/3746027.37581762

[C2] **Gholizadeh HamlAbadi, K.**, Vahdati, M., Dong, H., & El Saddik, A.
AI-Enhanced Creation of Digital Twins from iPhone LiDAR for Immersive XR Experiences in NVIDIA Omniverse.
Workshop on Intelligent Immersification in the Metaverse (I2M-MM '25), co-located with ACM MM, Dublin, 2025. [*Cited by 2*]
doi:10.1145/3728487.37592323

[C3] Vahdati, M., **Gholizadeh HamlAbadi, K.**, Laamarti, F., Kumar, D., & El Saddik, A.
Digital Twin AI Fitness Coach: An Intelligent Multi-Agent System for Personalized Exercise Guidance.
1st Workshop on Multi-Sensorial Media and Applications (MSMA '25), ACM MM, Dublin, 2025. **Best Student Paper Award** [*Cited by 1*]
doi:10.1145/3728485.37591715

[C4] Vahdati, M., **Gholizadeh HamlAbadi, K.**, Laamarti, F., & El Saddik, A.
A Multi-Agent Digital Twin Framework for AI-Driven Fitness Coaching.
ACM International Conference on Interactive Media Experiences (IMX '25), 2025, pp. 380–385. [*Cited by 4*]
doi:10.1145/3706370.37316516

[C5] Vahdati, M., **Gholizadeh HamlAbadi, K.**, Dong, H., Hafidh, B., & El Saddik, A.
Real-Time 2D-to-3D LiDAR Reconstruction and Omniverse-Based Visualization for Scalable Point Cloud Applications.
Workshop on Application-Driven Point Cloud Processing and 3D Vision (APP3DV '25), ACM MM, Dublin, 2025.
doi:10.1145/3728486.375921357

[C6] Elsaddik Valdivieso, Y., Faisal, M., Alghoul, K., Vahdati, M., **Gholizadeh HamlAbadi, K.**, Laamarti, F., Al Osman, H., & El Saddik, A.
The Potential of Olfactory Stimuli in Stress Reduction Through Virtual Reality.
2025 IEEE Medical Measurements & Applications (MeMeA), Chania, Greece, 28–30 May 2025, pp. 1–6. [*Cited by 1*] [175 full-text views]
Randomized within-subject study (N=30); olfactory stimuli produced a 108% HF-HRV increase vs. 44% without scent ($p = 0.002$, paired t-test).
doi:10.1109/MeMeA65319.2025.11068102

[C7] **Gholizadeh HamlAbadi, K.**, Vahdati, M., Saghiri, A.M., & Forestiero, A.
Digital Twins in Cancer: State-of-the-Art and Open Research.
IEEE/ACM CHASE 2021 (Connected Health: Applications, Systems & Engineering Technologies), Washington, D.C., 2021, pp. 109–204. [*Cited by 16*]

[C8] Vahdati, M., **Gholizadeh HamlAbadi, K.**, Saghiri, A.M., & Rashidi, H.
A Self-Organized Framework for Insurance Based on IoT and Blockchain.
IEEE FiCloud 2018, Barcelona, 2018, pp. 169–175. [*Cited by 29*]

[C9] Saghiri, A.M., Vahdati, M., **Gholizadeh, K.**, Meybodi, M.R., Dehghan, M., & Rashidi, H.

A Framework for Cognitive Internet of Things Based on Blockchain.
IEEE ICWR 2018, Tehran, 2018, pp. 138–143. **Best Paper Award** [*Cited by 59*]

[C10] **Gholizadeh HamlAbadi, K.**, Saghiri, A.M., Vahdati, M., Dehghan TakhtFooladi, M., & Meybodi, M.R.
A Framework for Cognitive Recommender Systems in the Internet of Things (IoT).
IEEE KBEI 2017, Tehran, 2017, pp. 0971–0976. [*Cited by 30*]

[C11] Vahdati, M., **Gholizadeh HamlAbadi, K.**, & Abdolvand, N.
The Effectiveness of the Internet and Search Engines on the Tourist Industry and Tourism.
1st National Conference on Tourism in Iran, Hamedan, 2013. (Poster & Proceedings, in Persian)

Selected Research Projects

CARE-AI: Coordinated, Agentic, Robust, Emotion-Aware AI MCRLab, University of Ottawa 2022 – Present
Role: Lead Researcher (PhD Thesis Research) Supervisor: Prof. Abdulmotaleb El Saddik
Doctoral dissertation project developing a next-generation emotion-aware Digital Twin framework for personalized human well-being coaching. Integrates multimodal sensing (computer vision, speech emotion recognition, wearable biosignals) with A2A Protocol and MCP multi-agent orchestration for real-time posture analysis and embodied feedback. Avatar-based human–AI interaction is realized via NVIDIA Omniverse / Audio2Face, with LLM-driven adaptive coaching (GPT, LLaMA, Gemini) managed through CrewAI and monitored via LangSmith and NVIDIA AgentIQ. Results published and demonstrated at ACM MM '25 (Rank A*) and ACM IMX '25.
Stack: Python, PyTorch, NVIDIA Omniverse, OpenUSD, Audio2Face, MediaPipe, OpenFace, CrewAI, A2A Protocol, MCP, LangSmith, NVIDIA AgentIQ, LLM APIs, PostgreSQL, pgvector.

NemoForge: Post-Reconstruction Physical Rehabilitation of Neural 3D Scenes MCRLab, University of Ottawa 2025 – Present
Role: Lead Researcher (PhD Thesis Research)
Thesis research project addressing the fundamental physics gap in neural 3D reconstruction pipelines (NeRF, 3DGS, DUSt3R): high photometric accuracy does not guarantee physical simulation validity. Developed a simulator-in-the-loop **Reason-Act-Reflect (RAR) agentic framework** in which a Physics Critic (NVIDIA Isaac Sim, true PhysX) detects floating objects, interpenetrating meshes, and non-manifold surfaces, while an LLM reasoning agent generates targeted geometric corrections. Introduced a **learned stopping policy** (2-layer MLP, behavioural cloning on a 9-dimensional Physics Critic state vector) as the first adaptive convergence criterion for physics-based scene correction in the literature. Proposed the **RFPCR** metric (Reconstruction-Fidelity-Preserving Correction Rate) jointly measuring physics improvement under a bounded visual fidelity constraint. Evaluation spans 20 self-captured scenes (tabletop, shelf, floor), 20 SAGE-10K scenes, and 3 ScanNet++ scenes. Target submission: CVPR / ICCV / ICML 2027.
Stack: NVIDIA Isaac Sim, PhysX, DUSt3R, NeRF/Nerfacto, 3DGS, OpenUSD, Python 3.10, PyTorch, FastAPI, LLM APIs (GPT-4o, LLaMA).

BCI in the Metaverse: First Meta-Review (PRISMA) MCRLab, University of Ottawa 2022 – 2024
Role: Lead Author Published: ACM TOMM, vol. 20, no. 12, Article 395, Nov. 2024 [CORE Rank A] [Cited by 26]
Conducted during the first year of the PhD, this project produced the **first-ever meta-review on Brain-Computer Interface (BCI) integration with the Metaverse**. Applied the PRISMA systematic review framework across Scopus, Web of Science, and PubMed (2017–2022), analyzing 42 peer-reviewed papers from 102 retrieved records. Classified BCI devices into wearable and non-wearable categories, developed two novel frameworks (Metaverse-as-Hub and Assistive-Devices-as-Hub) for BCI–Metaverse–assistive device integration, and produced quantitative analyses of eight core research challenge categories. Covers VR, AR, MR, XR, Digital Twins, haptics, and robotics in both medical (rehabilitation, health monitoring, mental health, diagnosis) and non-medical (gaming, education, navigation) domains. 2,098 full-text downloads and 26 citations as of May 2026.
DOI: 10.1145/3696109

Olfactory VR for Stress Reduction (Multisensory Well-Being) MCRLab, University of Ottawa 2024 – 2025
Role: Researcher & Contributor Published: IEEE MeMeA 2025, Chania, Greece [Cited by 1]
Contributed to a multisensory VR study investigating whether olfactory stimuli enhance physiological stress reduction in immersive environments. The experiment used a randomized within-subject design (N=30) comparing a calming virtual beach scene with and without a beach-scented essential oil diffuser. Stress was assessed via ECG-based Heart Rate Variability (HRV, Polar H10) and self-report scales (PANAS, SAM, RRS). Key finding: olfactory stimuli produced a **108% increase in HF-HRV** (parasympathetic activity) compared to 44% without scent, a statistically significant difference (paired t-test,

$p = 0.002$), demonstrating that olfactory integration subconsciously enhances VR relaxation beyond visual/auditory modalities alone. 71.4% of participants expressed willingness to adopt olfactory-enhanced VR for relaxation. Directly connected to the multimodal sensing and well-being research agenda of CARE-AI.
DOI: 10.1109/MeMeA65319.2025.11068102

Omniverse Kit Webcam-to-USD-Stage Extension MCRLab, University of Ottawa Aug. 2025
Role: Developer
Built a custom NVIDIA Omniverse Kit extension that streams a live webcam feed in real-time into a 3D USD viewport, driving a dynamic material texture on a USD plane geometry with a split-panel UI (camera feed + RTX viewport). Designed to support embodied AI and avatar perception pipelines requiring live visual input inside simulation environments. Implemented with OpenCV capture (DirectShow / `CAP_DSHOW` on Windows) integrated with `omni.ui`, `omni.usd`, and `omni.kit.*` APIs for responsive, threaded scene and texture updates. Packaged via the Omniverse Kit App Template (`.kit` config, `extension.toml`, Conda `environment.yml`).
Stack: NVIDIA Omniverse Kit SDK, OpenUSD, Python 3.10, OpenCV, NumPy, `omni.ui` / `omni.usd` / `omni.kit.*`, Conda.

iPhone LiDAR → NVIDIA Omniverse Digital Twin Pipeline MCRLab, University of Ottawa 2024 – 2025
Role: Lead Developer
End-to-end pipeline converting iPhone LiDAR point clouds to USD scenes via NeRF/Nerfacto for physics-grounded XR environments. Published at I2M-MM '25 and APP3DV '25 (ACM MM workshops, 2 citations).

Digital Twin Healthcare Monitor IoTDigitCorp / MCRLab 2019 – 2022
Role: Researcher
Designed and evaluated Digital Twin models for cancer, migraine, allergy, and nutrition monitoring. Resulted in three Elsevier book chapters (2023) and IEEE/ACM CHASE 2021 paper (16 citations, Washington D.C.).

Awards and Honors

- **Best Student Paper Award** *April 2025*
  1st International Workshop on Multi-Sensorial Media and Applications (MSMA '25), co-located with ACM Multimedia, Dublin, Ireland.
- **Best Paper Award** *April 2018*
  IEEE 4th International Conference on Web Research (ICWR), Tehran, Iran.
- **International Doctoral Scholarship**, University of Ottawa *Sep. 2022 – Present*
  For international PhD candidates; renewable annually for up to 5 years.
- **Special Merit Scholarship**, University of Ottawa *Sep. 2022*
  Recognizes sustained academic excellence at the graduate level.
- **Admission Scholarship**, University of Ottawa *Sep. 2022*
  Awarded to students with admission average $\geq 8.0/10$, enrolled full-time.

Professional Experience

Sadad Informatics Corporation (SIC) Tehran, Iran Oct. 2017 – Sep. 2022
Software Developer

One of Iran's largest fintech companies.

- Designed **open banking architectures** and microservice systems with Java Spring Boot, Hibernate, JPA, and RESTful APIs.
- Researched regulatory compliance frameworks; participated in international open-banking standards initiatives.
- Produced comprehensive API documentation and developer onboarding materials for open-banking platforms.

Technical Skills

Programming	Python, JavaScript, Java, C#, Bash, LaTeX
AI & Machine Learning	PyTorch, TensorFlow, scikit-learn, OpenCV, MediaPipe, OpenFace, NeRF/Nerfacto, LLM integration (OpenAI GPT, Gemini, LLaMA, Groq), CrewAI, A2A Protocol, MCP, behavioural cloning (BC), MLP policy networks
Physics Simulation	NVIDIA Isaac Sim, PhysX (rigid body), MuJoCo, mesh repair, convex-hull computation, point cloud processing, USD scene authoring
Digital Twins & XR	NVIDIA Omniverse, Omniverse Kit SDK, OpenUSD, Audio2Face, Isaac Lab, 3D reconstruction (LiDAR + NeRF), XR pipelines, multimodal fusion (vision, voice, biosignals)
Vision & 3D Reconstruction	3D Gaussian Splatting (3DGS), DUSt3R, NeRF/Nerfacto, COLMAP, Structure-from-Motion, point cloud pipelines (PLY, USD), iPhone LiDAR integration
Data & Backend	PostgreSQL, pgvector, Redis, SQL Server, MySQL, FastAPI, RESTful APIs, real-time streaming pipelines
Front-End & UI	JavaScript, HTML5, CSS, Streamlit, Gradio, `omni.ui`
DevOps & Tooling	GitHub, GitLab, Docker, Conda, Jira, Confluence, LangSmith, NVIDIA AgentIQ, VS Code, PyCharm, IntelliJ, Maven, Jenkins
Prior Industry Stack	Java Spring Boot, Hibernate, JPA, Ethereum (Solidity/DAO), Stellar blockchain, OpenStack, Grafana, Elastic (ELK)
Languages	English (professional fluency), Farsi / Persian (native)
Operating Systems	Ubuntu / Linux, Windows, CentOS

Academic Service

Editorial Board Membership

- **IEEE Metaverse Newsletter Editorial Board** — *Jun. 2024 – Present*
  metaversereality.ieee.org/publications/newsletter
- **ACM SIGMM Record** — *March 2026 – Present*
  records.sigmm.org

Journal Reviewer

- **ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)** — 6 manuscripts
- **Telematics and Informatics Reports (Elsevier)** — 2 manuscripts
- **Transactions on Machine Learning Research** — 1 manuscript
- **SoftwareX (Elsevier)** — 1 manuscript
- **Journal of Healthcare Engineering (Hindawi)** — 1 manuscript

Conference Reviewer

- **ACM International Conference on Interactive Media Experiences (IMX 2025)**
- **EAI PerSoM 2022** — EAI International Conference on Pervasive Knowledge and Collective Intelligence on Web and Social Media

Conference Organization & Volunteering

- **SIGGRAPH 2025** — Student Volunteer (Conference Support & Technical Assistance) — *Aug. 2025, Vancouver, Canada*
- **ACM Multimedia MM '23** — Student Volunteer — *Oct. 2023, Ottawa, Canada*

Professional Memberships

- **Association for Computing Machinery (ACM)** — Member (Student + Professional) — *Sep. 2024 – Present*
- **ACM SIGGRAPH** — Member — *2024 – Present*
- **ACM SIGMM** (Special Interest Group on Multimedia) — Member — *2024 – Present*
- **IEEE** — Student Member — *2016 – 2019*
- **IEEE Blockchain Technical Community** — Member — *2016 – 2019*
- **Young Researchers and Elite Club** — Researcher — *2018 – Present*

Certifications

- **Learn OpenUSD: Stages, Prims, and Attributes** — *NVIDIA Deep Learning Institute, Oct. 2024*