

AMIR REZA ASADI

PhD Candidate in Information Technology

Taming Digital Futures into Human-Friendly Experiences

Cincinnati, Ohio, United States

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RESEARCH INTERESTS

 HCI  Human-Centered AI  Persona Simulation  Extended Realities  Digital Twins

EDUCATION

PhD, Information Technology (2023-2027)

University of Cincinnati, GPA: 4.0

MSc, Information Technology Management (2014-2016)

Kharazmi University, Iran, GPA: 18.52 out of 20

Thesis: Content Marketing and Online Trust

BA, Computer Software Engineering (2010-2014)

Islamic Azad University North Tehran Branch, Iran, GPA: 16.69 out of 20

Thesis: Design & Development of Mobile Application for Daily Task Management for iOS

PUBLICATIONS

Peer Reviewed Journal Articles

- [J1] **Amir Reza Asadi**, Yuchong Zhang & Hazem Said. (2025). What do personas say about privacy & security: a systematic literature review through human-AI collaboration. *Journal of Ambient Intelligence and Humanized Computing*. <https://doi.org/10.1007/s12652-025-05007-w>
- [J2] **Amir Reza Asadi**, Akinremi, T. P., Appiah, J. K., Jayathilake, H. M., Ibitoye, O., & Said, H. (2025). Bits, Bytes, and Bars: Towards a Digital Twin of the US Criminal Justice System. *International Journal of Human-Computer Interaction*, 1-22.<https://doi.org/10.1080/10447318.2025.2452201>
- [J3] Jayathilake, H. M., **Amir Reza Asadi**, Akinremi, T., Appiah, J., Ibitoye, O., & Said, H. (2025). Leveraging Technology-Driven Nudging for Decision-Making in Criminal Justice-Expert Perspectives. *Issues in Informing Science and Information Technology*, 22, 004.<https://doi.org/10.28945/5508>
- [J4] **Amir Reza Asadi**, Akinremi, T. P., & Said, H. (2024). INFORMATION TECHNOLOGY IN HEALTHCARE: A SYSTEMATIC LITERATURE REVIEW. *Issues in Informing Science & Information Technology*, 21.<https://doi.org/10.28945/5326>
- [J5] **Amir Reza Asadi**. 2021. Human-Paper Interaction in the Digital Era: Directions for Human-Information Interaction Design. *EAI Endorsed Transactions on Creative Technologies* 8, 29.<https://doi.org/10.4108/eai.12-10-2021.171250>
- [J6] **Amir Reza Asadi**. 2021. The Future of Ownership: A Disruptive Scenario. *International Journal of Business and Management Invention* 10: 66-74.

Peer Reviewed Conference Proceedings

- [C1] **Amir Reza Asadi**, Appiah, J. K., Akinremi, T. P., & Said, H. (2025). Toward Building Behavioral Testbeds for Security and Privacy: LLM-Driven Personas as Crash Dummies. In *Symposium on Usable Privacy and Security (SOUPS) 2025*. (Poster)https://www.usenix.org/system/files/soups2025_poster9_abstract-asadi.pdf
- [C2] **Amir Reza Asadi**, Botsyoe, L. E., & Kropczynski, J. (2025). No Hardware, No Problem: Wizard of LLMs for Scenario Based Prototyping of IoT Systems. In *Creativity & Cognition 2025*. (Poster <https://doi.org/10.1145/3698061.3734406>).
- [C3] Akinremi, T. P., Appiah, J. K., **Amir Reza Asadi**, Ibitoye, O., & Popoola, S. (2025). Driving Factors Behind Adopting Virtual Testbeds for ICS Cybersecurity Education. In *Proceedings of the ACM SIGCITE 2025 Conference*, Sacramento, CA, USA. (in press)
- [C4] Ibitoye, O., **Amir Reza Asadi**, Akinremi, T., Appiah, J., Jayathilake, H., & Said, H. . Exploratory study on the application of artificial intelligence tools to enhance supply chain resilience. In *2025 1st International Conference on Secure IoT, Assured and Trusted Computing (SATC)*. IEEE. <https://doi.org/10.1109/SATC65530.2025.11137352>
- [C5] Akinremi, T., Appiah, J., **Amir Reza Asadi**, Ibitoye, O., Jayathilake, H., & Said, H. . Systematic literature review of cybersecurity testbeds for Industrial Internet of Things. In *2025 1st International Conference on Secure IoT, Assured and Trusted Computing (SATC)*. IEEE. <https://doi.org/10.1109/SATC65530.2025.11137109>
- [C6] **Amir Reza Asadi** & Prabhakar, A. S. (2024). Towards Digital Zen: A Systematic Review of Emerging Digital Interventions for Mental Wellness. In Arai, K. (eds) *Proceedings of the Future Technologies Conference (FTC) 2024*, Vol-

ume 3. FTC 2024. Lecture Notes in Networks and Systems, vol 1156. Springer, Cham. https://doi.org/10.1007/978-3-031-73125-9_7

[C7] **Amir Reza Asadi**, Saraee, M., & Mohammadi, A. (2025). Metaverse Innovation Canvas: A Tool for Extended Reality Product/Service Development. In Brooks, E., Edstrand, E., Møller, A.K., Bjørner, T. (eds) Design, Learning, and Innovation. DLI 2024. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, vol 604. Springer, Cham. https://doi.org/10.1007/978-3-031-85663-1_1

[C8] **Amir Reza Asadi** & Hemadi, R. (2024, November). Towards Mixed Reality as the Everyday Computing Paradigm: Challenges and Design Recommendations. In Proceedings of the Future Technologies Conference (pp. 560-573). Cham: Springer Nature Switzerland

[C9] **Amir Reza Asadi** & Kropczynski, J. (2024). Qualitative Data-Driven Personas: Designing an Interactive System for Creating AI Personas. In Proceedings of the 2024 The 6th World Symposium on Software Engineering (WSSE '24), 232–236. ACM, New York, NY, USA. doi: 10.1145/3698062.3698096

[C10] **Amir Reza Asadi**, Appiah, J., Muntaka, S. A., & Kropczynski, J. (2024, June). Actions, Not Apps: Toward Using LLMs to Reshape Context Aware Interactions in Mixed Reality Systems. In International Conference on Human-Computer Interaction (pp. 166-176). Cham: Springer Nature Switzerland

[C11] Kropczynski, J., Oluwadare, S., Elrod, N., Mahajan, P., **Amir Reza Asadi**, Koch, J., & Botsyoe, L. E. (2024, May). Towards a Standardized Data Framework for Threat Detection in Smart Homes. In 2024 IEEE 24th International Symposium on Cluster, Cloud and Internet Computing Workshops (CCGridW) (pp. 62-67). IEEE.

[C12] **Amir Reza Asadi**. (2023). LLMs in Design Thinking: Autoethnographic Insights and Design Implications. In Proceedings of the 2023 5th World Symposium on Software Engineering (WSSE '23), Tokyo, Japan, 55–60. ACM, New York, NY, USA. doi: 10.1145/3631991.3631999

[C13] **Amir Reza Asadi**. (2021). Cognitive Ledger Project: Towards Building Personal Digital Twins Through Cognitive Blockchain. 2021 2nd International Informatics and Software Engineering Conference (IISEC), Ankara, Turkey, 1–5. doi: 10.1109/IISEC54230.2021.9672433

[C14] **Amir Reza Asadi**. 2020. iParallel: A SmartWatch-based Serious Game for Organizational Learning. 2020 International Serious Games Symposium (ISGS), IEEE, 68–73.

[C15] **Amir Reza Asadi** and Mostafa Rezaei. 2020. Future Portal: The Collaborative Encyclopedia of the Future. 4th Scientific Conference of Applied Research in Science and Technology of Iran, Civilica.

[C16] **Amir Reza Asadi** and Reza Hemadi. Using Physical Object Detection as User Interface in Video Games. 2nd International Conference on Technology Innovation in Science, Engineering & Technology, Civilica. (Poster)

[C17] **Amir Reza Asadi** and Hossein Norouzi. 2019. Content Marketing and Online Trust: The Case of Promoting Knowledge for Video Game Shoppers. International Conference on Knowledge Management, Blockchain and Economics, Civilica.

[C18] **Amir Reza Asadi** and Reza Hemadi. 2018. Augmented Reality Game Creator for On-site Job Training. 2018 2nd National and 1st International Digital Games Research Conference: Trends, Technologies, and Applications (DGRC), IEEE, 128–133.

[C19] **Amir Reza Asadi** and Reza Hemadi. 2018. Understanding Virtual Currencies in Video Games: A Review. 2018 2nd National and 1st International Digital Games Research Conference: Trends, Technologies, and Applications (DGRC), IEEE, 109–117.

[C20] **Amir Reza Asadi** and Reza Hemadi. 2018. Design and implementation of a chatbot for e-commerce. Information Communication Technology Development and Doing Business, Civilica.

[C21] **Amir Reza Asadi** and Reza Hemadi. 2018. Design of an AR/VR platform for e-Commerce. Information Communication Technology Development and Doing Business, Civilica.

[C22] **Amir Reza Asadi**. 2017. Key disappointing factors of video game sequels in the eighth-generation era. Digital Games Research Conference 2017.

Online Magazines

Democratizing game authoring: a key to inclusive freedom of expression in the metaverse., ACM, 2023

5 Crucial UX/UI Principles for Designing Augmented Reality (AR) Apps, Hackernoon, 2022

Marketing Centric Idea Evaluation Process for Startups”, Hackernoon. 2021

Brain Computer Interface for Metaverse, MetaverseCHI, 2022

Book Review

Davide Aversa. 2021. Unity Artificial Intelligence Programming. Packt Publishing Ltd.

Book

Hossein Norouzi and **Amir Reza Asadi**. 2018. Content Marketing [In Persian]. Citeh.

PRESENTATIONS

Amir Reza Asadi. (2025). Can AI Eat UI? Mapping Transformation Toward AI-Mediated Interactions. In IT Research Symposium. University of Cincinnati.

Amir Reza Asadi, Kunapareddi, V., Smith, M. S., & Said, H. (2025). Honesty or Reality: When LLM-Driven Personas Confess. In IT Research Symposium. University of Cincinnati.

Amir Reza Asadi., & Botsyoe, L. E. (2024). Wizard of Things: Using LLMs for rapid prototyping of IoT projects. IT Research Symposium. University of Cincinnati.

RESEARCH EXPERIENCE

Graduate Research Assistant at IT Solutions Center

University of Cincinnati, Dec 2023 – Now

- Researching about LLM Agents in Criminal Justice Training
- Conducted a research on the foundational gap of digital twins in social context to develop an blue print to create digital twin of US criminal justice system to advance fairness and safety
- Advancing K12 student data privacy as user experience designer for Student Data Privacy Consortium
- Developer and User Experience Designer for Ohio Sentencing Data Platform project

TEACHING EXPERIENCE

Adjunct Instructor

University of Cincinnati, Aug 2025 – Now

- Fundamentals of Web Developments IT2040

Graduate Teaching Assistant at IT Learning Center

University of Cincinnati, Aug 2023 – Dec 2023

- Teaching Assistant for Infrastructure Sustainability Labss

INDUSTRY EXPERIENCE

Managing Director, UX Researcher & Designer

Humind Labs, Iran, Aug 2016 – July 2023

A research-driven startup studio that not only incubates in-house startups but also provides technology and product design consulting services to startup founders.

- Collaborated closely with developers, and graphic designers, I effectively managed and guided projects to success and release.
- Contributed to startups in Entertainment, Art, Retail, Fintech, Tourism, and Business.
- Provided idea validation, feasibility analysis, prototyping, and Business model development services
- Designed XR interactions and interfaces using Unity, Reality Composer and Aero
- Designed survey to study the usability of AR Experiences
- Designed Websites/Mobile Applications
- Studied usability of applications by creating questionnaires and measuring EEG signals using Neurosky Headsets
- Developed proof of concept version of a personal knowledge management application
- Researched and designed a controller for DesktopVR
- Researched & utilized participatory design workshop to design a blockchain based AI infrastructure for storing personal digital cognitive twins.
- Designed a brainstorming boardgame for conducting ideation workshops
- Researched robot ergonomics.
- Studied usability of Oculus Quest 2, Google Cardboard, and PSVR for completing long tasks
- Created UX Research Artifacts such as Persona, User Journey Map, Task Analysis, User flow
- Conducted foresight study on impact of trending technologies in future economic systems.
- Applied Unity Barracuda and ML Agents framework to study AI systems in Immersive Environment
- Utilized Apple CoreML to study the usability of AI in Mixed Reality

Founder- Designer and Developer

Simorq Cloud Solutions, Iran, Aug 2011 – June 2016

An e-commerce company.

- Founded & managed online shops with 300K monthly visitors.
- Demonstrated expertise in maintaining web servers and effectively managing CMSs
- Empowered small businesses with web design services, and driving online presence.

SERVICE AND LEADERSHIP

Professional Leadership

Chair, University of Cincinnati ACM SIGCHI Student Chapter (Feb 2024 – Present)

- Established and organized chapter to advance cross disciplinary research among students interested in HCI
- Recruited chapter members and built active community

Chair, Metaverse ACM SIGCHI Chapter (Nov 2021 – Nov 2023)

- Initiated research on Metaverse excellence models and co-developed Metaverse Glossary
- Initiated Metaverse Knowledge Center to crowdsource Metaverse knowledge curation

Chair, Tehran ACM SIGCHI Chapter (Sept 2021 – Sept 2023)

- Conducted workshops on trending technologies and design tools (3D CMS, WebVR)
- Mentored community members on career-relevant skills and goals

Editorial and Review Service

35+ papers reviewed across HCI conferences and journals (2021-2025)

Major HCI Conferences:

- CHI: 12 papers (2022-2025) – Papers, Late-Breaking Work, alt.chi
- DIS: 6 papers (2022-2025) – Papers, Pictorials, Work-in-Progress
- CSCW: 4 papers (2022-2025) – Papers and Posters
- Mensch und Computer: 4 papers (2024-2025)
- CHI PLAY: 3 papers (2022) – Work-In-Progress
- IEEE VR: 2 papers (2022) – Journal Papers
- HRI: 1 paper (2022) – alt.HRI
- EAI QSHINE(1 paper), EAI ICDF2C(1 Paper)

Journals:

- Entertainment Computing, Elsevier (1 paper)
- Human-centric Intelligent Systems, Springer Nature (1 paper)

Mentoring and Community Service

- **Student Mentoring:** 2 undergraduate and 1 graduate student on career development and research skills

SELECTED PROJECTS

Related Services Documentation

Lead and Designed Research Protocol, Conducted 14 think-aloud sessions with therapists and supervisors to design an AI-powered documentation system that would replace the existing legacy system and improve documentation efficiency, and compliance with Individuals with Disabilities Education Act (IDEA)

Designed end-to-end interaction workflows and collaborated with developers to ensure UX design goals and requirements were maintained throughout development

Student Data Privacy Consortium (SDPC) V2: Led collaborative design of user experience for the SDPC Resource Registry platform serving 6,778 school districts nationwide. Directed interface design efforts to improve K-12 student data privacy resources accessibility and usability for educational stakeholders.

BeyondPass: Conducted research and designed an interactive prototype of the user experience of a Location based AR Operating system and used it to conduct diaries studies for future projects.

SpatialShare: Researched and designed a proof of concept of an AR presentation app (PowerPoint for AR)

FashionatorApp: Applied interview, observation, social media content analysis to design a Metaverse fashion platform to democratize and simplify digital fashion design. Conducted usability studies to enhance the performance of the tools and reduced task time completion of core features of fashion design workflow by of 83% on average.

PubFighters AR: First iOS AR Game that utilizes human body as the interface

Archive Cube: Designed and prototyped a device with Tangible Interactions for secure storage of digital archives by using RFID Sensor, Raspberry PI and e-INK Display.

BeyondBoard AR: Researched & designed an AR productivity app that increases the usability of documents and facilitates remote work that reached the Top 100 chart of Productivity Apps

BoomVand: Experiential Tourism Booking System

AR Graffiti: An Augmented Reality Graffiti Sharing Social Network

CERTIFICATIONS

AI Agents: From Prompts to Multi-Agent Systems - 2025

University of California, Davis on Coursera

Coach to Mentor Program - 2025

Warren Bennis Leadership Institute, University of Cincinnati

Digital Fashion Innovation Specialization - 2022

Parsons School of Design, The New School on Coursera

Futures Thinking - 2020

Institute for the Future on Coursera

Deep Learning Specialization - 2020

Deeplearning.ai on Coursera

Graphic Design Specialization - 2019

California Institute of the Arts on Coursera.

Game Design Specialization - 2019

California Institute of the Arts on Coursera.

Interaction Design Specialization - 2018

UC San Diego on Coursera

Skills: Human-Centered Design, User Experience: Research & Prototyping, Designing Storyboards & Wireframes, Information Design, Designing, Running, and Analyzing Experiments such as A/B testing

Product Design Delft Approach - 2016

Online Learning Initiative of Delft University of Technology Delft, Netherland, on edX

Business Administration Diploma - 2012

Tehran Institute of Technology

ORGANIZATIONS

Special Interest Group on Computer Human Interaction (ACM SIGCHI)

Cognitive Science Society

IEEE

XR Guild: Ethical XR Professionals

FELLOWSHIP & AWARD

Poster Runner Up, IT Research Symposium, University of Cincinnati, 2025

Graduate Students Government Fellowship for Innovation and Entrepreneurship Advancement (2000\$), University of Cincinnati, 2024

Hackernoon's Tehran Startup of Year 2021 for BeyondBoard AR Pro

SKILLS

AI & Machine Learning: Large Language Models (LLMs), Multi-Agent Systems, Persona Simulation, Vector Databases, Embeddings, Prompt Engineering, Human-AI Interaction Design, AI Agent Modeling, LLM-driven Research Methods

Methods: Mixed Methods, Business Process Reengineering, Speculative Design, More than Human Design, Design Thinking, Futures Thinking,

Programming: Python, C# for Unity, TypeScript Swift for iOS, C/C++ for Microcontroller Programming