Mohammad HadiNezhad

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Experiences

2020–2025 **HCI/UX Researcher**, *Advanced Learning Technologies Lab*, *UMass Amherst, MA, US*.

- Actively working on the ethical design of technologies.
- Acted as lead researcher and managed collaboration among four advisors across varied fields. Responsible for conducting all research phases, from initiation to execution, resulting in a full paper accepted at ECTEL24. We introduced a conceptual model of math teachers' in-class information needs and usage, addressing recurring issues in learning analytics systems.
- Acted as lead researcher and collaborated with expert advisors and conducted a study on uncertainty communication in differentially private data visualizations.

2018–2018 **Summer Intern**, *ViraTech Company*, *Tehran, Iran*.

- Acted as a UX Researcher dedicated to optimizing an online grocery shopping application. By monitoring user interactions with the interface, we addressed a range of usability issues, resulting in a boost in the number of customers who added orders through the application.

Education

2020–2025 **University of Massachusetts Amherst**, *MA, US*,
Ph.D. in Computer Science.
Relevant courses: Advanced Methods in HCI, Artificial Intelligence, Advanced Algorithm, Neural Networks, Data Visualization & Exploration, Educational Data Mining

2013–2018 **Sharif University of Technology**, *Tehran, Iran*,
B.Sc. in Computer Engineering.
Relevant courses: Intro to HCI, Web Programming, Software Engineering, Object-Oriented Design, Database Design, Java Programming

Skills

Research Methods	Interviews, Survey, Contextual Inquiry, Focus Group, Thematic Analysis, Usability Testing, Prototyping, Qualitative Methods, Quantitative Methods
Programming	HTML, CSS, Javascript, Python, SQL
Tools	Figma, Axure, Justinmind, Adobe Photoshop, Adobe Premiere, NVivo, Trello, Slack, Google suite, PyCharm, PgAdmin
Computer Science	Agile Methodology, Unified Modeling Language (UML), Database Design Processes
Languages	English, Persian/Farsi

Publications

2024 **Hadi Nezhad, M.**, Castro, F., Woolf, B., & Arroyo, I. (2024). Math Teachers' In-class Information Needs and Usage for Effective Design of Classroom Orchestration Tools. ECTEL'24. [*Accepted through peer review*].

Projects

2024 **Math Teachers' In-class Information Needs and Usage for Effective Design of Learning Analytics Systems**, *Advanced Learning Technologies Lab, UMass Amherst*.

- Initiated an interdisciplinary study into math teachers' real-time information needs and usage. Undertook in-person classroom observations, teacher interviews, and a focus group, followed by an in-depth qualitative analysis, creating a conceptual model of math teachers' in-class information needs and usage. This model provides a theoretical basis for addressing recurring challenges in learning analytics systems.

2021 **Characterizing Uncertainty Communication in Visualization of Differentially Private Data**, *HCI-VIS Lab, UMass Amherst.*

- Initiated an interdisciplinary study into the communication of uncertainty in differentially private data visualizations, resulting in a novel framework that identifies and articulates uncertainty via specific input/output artifacts and attributes. Collaborated with expert advisors, enhancing research proficiency.

2021 **Visual Data Analysis Under Differential Privacy**, *HCI-VIS Lab, UMass Amherst.*

- Employed User-Centered Design (UCD) methodologies to design and evaluate a visualization tool, enhancing visual data analysts' comprehension of Differential Privacy's impacts on data visualization.

2018 **Usability Problems of a Smart Conference Room's User Interface**, *HCI Lab, Sharif University of Technology.*

- Conducted heuristic evaluation and cognitive walkthrough on a smart conference room management system's user interface, identifying key usability issues.

2018 **1-1 Marketing and Distributing Smart Devices over the Web**, *Undergraduate Thesis, Sharif University of Technology.*

- Investigated the effectiveness of various social media platforms, such as Instagram, and content types (videos, posters, etc.) for one-to-one marketing strategies for Google Glasses.

2018 **Analysis, Design, and Implementation of a Punishment & Reward Management System**, *Object-Oriented Design Course Project.*

- Utilized the Unified Process Methodology and principles of Object-Oriented Design to develop a web-based software, facilitating the management of a reward and punishment system.

2016 **Analysis, Design, and Implementation of a Software Company Database**, *Database Design Course Project.*

- Analyzed business requirements, designed ER diagrams, and implemented a database utilizing PostgreSQL.

Awards & Honors

2021 **James Kurose Scholarship**, *UMass Amherst.*

Awarded the James Kurose Scholarship in Computer Science for an outstanding computer science graduate student.

Teaching Experiences

2021–2023 **Teaching Assistant**, *UMass Amherst.*

- Responsible for delivering lectures, conducting office hours, leading lab sessions, and designing exams for classes with enrollments averaging 100 students. Played a crucial role in course management by overseeing course tools, coordinating with other TAs/UCAs, and undertaking grading duties.
- Courses assisted:
  - CS325: Introduction to Human-Computer Interaction
  - CS345: Practice and Applications of Data Management
  - CS326: Web Programming

2017 **Teaching Assistant**, *Sharif University of Technology.*

- Contributed to the course CE40-418: System Analysis and Design, with responsibilities including holding office hours, lab sessions, and undertaking grading duties.

Volunteering Activities

2022 **Team Member & Event Organizer**, *Iranian Graduate Student Association (IGSA), UMass Amherst.*

Collaborated in a dedicated team of five to orchestrate the vibrant Nowruz 1401 event, enhancing cultural representation and community engagement on campus.