Hanif Emamgholizadeh

Computer Scientist | Network Science, Social Influence and Group Decision-Making

Bolzano, Italy | +39 348 291 7565 | h.emamgholizadeh@gmail.com

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Research Profile

Computer scientist with a PhD from the Free University of Bozen-Bolzano and a research trajectory connecting social network analysis, network-based computational methods, and the modeling of collective decisions. Early research investigated attributed social networks, biased random walks, community detection, and scientific social networks. Doctoral research examined group recommender systems, individual and collective preferences, and decision support in interactive group settings. Current research interests concern probabilistic representations of social influence, evolving group states, and human decision-making. Interested in extending this methodological background to longitudinal, large-scale social network analysis and computational social science.

Research Interests

Network science and social network analysis;
computational social science;
social influence and group dynamics;
probabilistic modeling of human behavior;
group decision-making and recommender systems.

Academic Appointments and Research Experience

Research Assistant May 2025 – October 2026
Free University of Bozen-Bolzano, Italy

- Development of a probabilistic framework for modeling group dynamics and collective decision-making, with a focus on latent group states, evolving individual preferences, social influence, and uncertainty-aware inference.
- Research on machine learning and computer vision for post-harvest apple disease and bruising detection, including multimodal data processing, classification, and experimental evaluation.

Doctoral Researcher November 2020 – February 2025
Free University of Bozen-Bolzano, Italy

- Investigated computational approaches to group decision-making, including the prediction of group choices from individual and group profiles.
- Developed and evaluated decision-support systems for groups, including conversational support (CHARM) and preference management (MyFoodGRS).
- Studied group dynamics, individual preferences, and mechanisms for supporting collective decisions through user studies and predictive modeling.

Research Assistant April 2019 – October 2020
Yazd University, Iran

Research in social network analysis, including attributed-network structure and network-based approaches to quantifying controversy.

Research Assistant October 2017 – April 2019
Qom University,

Research related to scientific social networks, collaborator recommendation, and community detection.

Research Assistant October 2014 – October 2015
Yazd University, Iran

Research on online social network models and network communities.

Education

PhD in Computer Science 2020 – 2025
Free University of Bozen-Bolzano, Italy

Thesis: *Group Recommender Systems – Group Dynamics, Decision-Making Scenarios, and Choice Prediction.*

MSc in Computer Science 2012 – 2014
Yazd University, Iran

Thesis: *Comparison of presented online social network models with a focus on constructed communities.*

BSc in Computer Science 2006 – 2012
Mahabad PNU, Iran

Selected Research Contributions

- **Network methodology:** Developed a biased-random-walk framework for quantifying controversy in attributed networks, published in *Social Network Analysis and Mining.*
- **Network-based social computing:** Contributed to studies of collaborator discovery in scientific social networks and multi-agent recommendation in Twitter networks.
- **Collective behavior and choice prediction:** Developed approaches to predict group choices from group profiles and to support individual preference management in group decisions.
- **Interactive decision support:** Investigated group decision processes through conversational systems and empirical user studies.

Selected Peer-Reviewed Publications

Network science and social network analysis

1. **Emamgholizadeh, H.**, Noorizadeh, M., Tajbakhsh, M. S., and Hasheminezhad, M. *A Framework for Quantifying Controversy in Attributed Networks: Biased Random Walk (BRW).* Social Network Analysis and Mining. [DOI / source]

2. Tajbakhsh, M. S., **Emamgholizadeh, H.**, Ayough, F., Solouk, V., and Bagherzadeh, J. *Multi-agent celebrity recommender system (MACeRS): Twitter use case.* Social Network Analysis and Mining. [DOI / source]

3. Roozbahani, Z., Rezaeenour, J., **Emamgholizadeh, H.**, and Jalaly Bidgoly, A. *A systematic survey on collaborator finding systems in scientific social networks.* Knowledge and Information Systems. [DOI / source]

Group decision-making, preferences and interactive systems

4. **Emamgholizadeh, H.**, Delić, A., and Ricci, F. *Choice Making Support for a Group Organizer: The Case of Restaurant Recommendation.* Information Technology & Tourism, 28(1), Article 22, 2026. [DOI / source]

5. **Emamgholizadeh, H.**, Delić, A., and Ricci, F. *Predicting Group Choices from Group Profiles.* ACM Transactions on Interactive Intelligent Systems 14(1), 2024. [DOI / source]

6. Delić, A., **Emamgholizadeh, H.**, Ricci, F., and Masthoff, J. *Supporting Group Decision-Making: Insights from a Focus Group Study.* UMAP, 2024. (**First two authors contributed equally.**) (**Nominated for the Best Short Paper Award**). [DOI / source]

7. **Emamgholizadeh, H.**, Delić, A., and Ricci, F. *Preference Management in a Single User Group Recommender System.* ENTER e-Tourism, Springer, 2024. [DOI / source]

8. Delić, A., **Emamgholizadeh, H.**, Nguyen, T.-N., and Ricci, F. *CHARM: a Group Decision Making Support Chatbot.* IUI Companion, 2024. (**First two authors contributed equally.**) [DOI / source]

9. **Emamgholizadeh, H.**, Delić, A., and Ricci, F. *Anticipating Eating Preferences in Group Decision Making.* UMAP Adjunct, 2024. (**Winner of the Best Paper Award.**) [DOI / source]

Full publication list: Google Scholar.

Technical and Methodological Skills

Programming: Python, R, C, C++, Java, JavaScript, PHP.

Machine learning: PyTorch, TensorFlow, scikit-learn; predictive modeling, classification, and experimental evaluation.