

CURRICULUM VITAE

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EDUCATION

- Ph.D., Intelligent Systems Program, Jul. 2016
· University of Pittsburgh, Pittsburgh, PA
- M.Sc., Intelligent Systems Program, Jan. 2013
· University of Pittsburgh, Pittsburgh, PA
- M.Sc., Computer Engineering (Software), Feb. 2009
· University of Tehran, Tehran, Iran
- B.Sc., Computer Engineering (Software), Feb. 2005
· Sharif University of Technology, Tehran, Iran

PROFESSIONAL APPOINTMENTS

- Assistant Professor, Sep. 2016–Present
· Department of Computer Science, University at Albany – State University of New York, Albany, NY

RESEARCH INTERESTS

I am broadly interested in application of Machine Learning in Recommender Systems, Educational Data Mining, and Social Networks. My research is focused on finding creative ways to use external information in these problems, adopting approaches such as Transfer Learning, Tensor Factorization, and Topic Models. I particularly enjoy interdisciplinary and collaborative research. Here is a more detailed list of my research interests:

- Recommender Systems, Cross-Domain Recommendation, External Information Usage in Collaborative Filtering, Community-Based Recommender Systems
- Educational Data Mining, Personalized Learning, Student Modeling, Domain Knowledge Modeling, Learning Analytics, Educational Sequencing
- Social Network Analysis, Multi-Dimensional Community Detection in Social Networks, Scholar Networks

TEACHING EXPERIENCE

- **Undergraduate Courses,**
 - *Introduction to Databases*, University at Albany – SUNY. Fall 2019
 - *Computational Methods and Linear Algebra*, University at Albany – SUNY. Fall 2017
 - *Introduction to Artificial Intelligence*, University at Albany – SUNY. Fall 2016
- **Graduate Courses,**
 - *Data Mining*, University at Albany – SUNY. Fall 2018

- *Introduction to Artificial Intelligence*, University at Albany – SUNY. Spring 2018,2019
- *Computational Methods and Linear Algebra*, University at Albany – SUNY. Fall 2017
- *Machine Learning for User Adaptive Systems Seminar*, University at Albany – SUNY. Spring 2017
- **Guest Lecture**,
- *Internet of Things*, on recommender systems, University at Albany – SUNY. Fall 2017
- *Adaptive Information Systems*, on advanced recommender systems, University of Pittsburgh. 2013, 2014, and 2015
- **Teaching Volunteer**, *TechDivaz Workshop*, University of Pittsburgh. 2012
- An all-girls computer science and programming workshop for students in grades 7 to 9

PUBLICATIONS

BOOK CHAPTERS

- [1] D. Parra and **S. Sahebi**, “Recommender systems: Sources of knowledge and evaluation metrics,” in *Advanced Techniques in Web Intelligence-2: Web User Browsing Behaviour and Preference Analysis*, J. V. et al. (Eds.), Ed. Berlin Heidelberg: Springer-Verlag, 2013, ch. 7, pp. 149–175.

CONFERENCE & WORKSHOP PAPERS

- [2] T. N. Doan and **S. Sahebi**, “Rank-based tensor factorization for student performance prediction,” in *Proceedings of the 12th International Conference on Educational Data Mining*. IEDMS, 2019.
- [3] M. Mirzaei, **S. Sahebi**, and P. Brusilovsky, “Annotated examples and parameterized exercises: Analyzing student’s sequential patterns,” in *The 20th International Conference on Artificial Intelligence in Education*. AIED, 2019.
- [4] **S. Sahebi** and P. Brusilovsky, “Student performance prediction by discovering inter-activity relations,” in *Proceedings of the 11th International Conference on Educational Data Mining*. IEDMS, 2018.
- [5] **S. Sahebi**, P. Brusilovsky, and V. Bobrov, “Cross-domain recommendation for large-scale data,” in *The 1st Workshop on Intelligent Recommender Systems by Knowledge Transfer & Learning (RecSysKTL)*, 2017.
- [6] **S. Sahebi**, Y. Lin, and P. Brusilovsky, “Tensor factorization for student modeling and performance prediction in unstructured domain,” in *The 9th International Conference on Educational Data Mining*. IEDMS, 2016.
- [7] **S. Sahebi** and P. Brusilovsky, “It takes two to tango: An exploration of domain pairs for cross-domain collaborative filtering,” in *Proceedings of the 9th ACM Conference on Recommender Systems*. ACM, 2015, pp. 131–138.
- [8] **S. Sahebi**, Y. Huang, and P. Brusilovsky, “Predicting student performance in solving parameterized exercises,” in *Intelligent Tutoring Systems*. Springer, 2014, pp. 496–503.
- [9] **S. Sahebi** and T. Walker, “Content-based cross-domain recommendations using segmented models,” in *Workshop on New Trends in Content-based Recommender Systems (CBRecsys)*. ACM, 2014, pp. 57–63.
- [10] J. Guerra, **S. Sahebi**, P. Brusilovsky, and Y. Lin, “The problem solving genome: Analyzing sequential patterns of student work with parameterized exercises,” in *7th International Conference on Educational Data Mining*, 2014, pp. 153–160.
- [11] **S. Sahebi**, Y. Huang, and P. Brusilovsky, “Parameterized exercises in java programming: using knowledge structure for performance prediction,” in *The second Workshop on AI-supported Education for Computer Science (AIEDCS)*. University of Pittsburgh, 2014, pp. 61–70.

- [12] **S. Sahebi** and P. Brusilovsky, "Cross-domain collaborative recommendation in a cold-start context: The impact of user profile size on the quality of recommendation," in *User Modeling, Adaptation, and Personalization*. Springer, 2013, pp. 289–295.
- [13] C. Lopez, R. Farzan, **S. Sahebi**, and P. Brusilovsky, "What influences the decision to participate in audience-bounded online communities?" in *iConference 2013 Proceedings*, 2013, pp. 491–496.
- [14] **S. Sahebi** and W. W. Cohen, "Community-based recommendations: a solution to the cold start problem," in *Workshop on Recommender Systems and the Social Web, RSWEB*. ACM, 2011.
- [15] P. Brusilovsky, D. Parra, **S. Sahebi**, and C. Wongchokprasitti, "Collaborative information finding in smaller communities: The case of research talks," in *Collaborative Computing: Networking, Applications and Worksharing (CollaborateCom), 2010 6th International Conference on*. IEEE, 2010, pp. 1–10.
- [16] **S. Sahebi**, C. Wongchokprasitti, and P. Brusilovsky, "Recommending research colloquia: a study of several sources for user profiling," in *Proceedings of the 1st International Workshop on Information Heterogeneity and Fusion in Recommender Systems*. ACM, 2010, pp. 32–38.
- [17] R. Khosravi, M. Sirjani, N. Asoudeh, **S. Sahebi**, and H. Irvanachi, "Modeling and analysis of reo connectors using alloy," in *Coordination Models and Languages*. Springer, 2008, pp. 169–183.
- [18] **S. Sahebi**, F. Oroumchian, and R. Khosravi, "An enhanced similarity measure for utilizing site structure in web personalization systems," in *Web Intelligence and Intelligent Agent Technology, 2008. WI-IAT'08. IEEE/WIC/ACM International Conference on*, vol. 3. IEEE, 2008, pp. 82–85.
- [19] **S. Sahebi**, F. Oroumchian, and R. Khosravi, "Applying and comparing hidden markov model and fuzzy clustering algorithms to web usage data for recommender systems," in *Data Mining and Knowledge Discovery*, 2008, pp. 179–181.

POSTERS

- [20] D. Parra, W. Jeng, P. Brusilovsky, C. López, and **S. Sahebi**, "Conference navigator 3: An online social conference support system." in *UMAP Workshops*, 2012.

THESES

- [21] **S. Sahebi**, "Cross-domain recommendation: The feasibility and the value for the cold start users," Master's thesis, Intelligent Systems Program, University of Pittsburgh, 2013.
- [22] **S. Sahebi**, "Applying web content to web recommendation systems," Master's thesis, Electrical and Computer Engineering Department, University of Tehran, 2009.
- [23] **S. Sahebi**, "A system for evaluating view updating in rdbmss," Bachelor's thesis, Computer Engineering Department, Sharif University of Technology, 2005.

PRESENTATIONS AND INVITED TALKS

- Invited Speaker, "Making Sense of Complex Data in Online Educational Systems," Institute for the Science of Teaching & Learning, Arizona State University, March 22, 2018

AWARDS AND HONORS

- **Grants and External Support**
 - CyberLearning: Detecting and Predicting Procrastination in Online and Social Learning, Award No. 1917949, National Science Foundation \$749,766, August 2019 – July 2022. co-PI. 2019-2022

- CRII: III: Modeling Student Knowledge and Improving Performance when Learning from Multiple Types of Materials, Award No. 1755910, National Science Foundation \$174,669, September 2018 – August 2020. Lead PI. 2018-2020
- FRAP-A: Hybrid Cross-Domain Recommendation and Explanation, University at Albany–SUNY \$10,000, May 2018 – August 2019. Lead PI. 2018-2019
- **Honors and Fellowships**
 - A&S Fellowship, Intelligent Systems Program, University of Pittsburgh 2014
 - A&S Fellowship, Intelligent Systems Program, University of Pittsburgh 2013
 - ACM SRC Awards, for GHC conference 2013
 - A&S Fellowship, Intelligent Systems Program, University of Pittsburgh 2009

PROFESSIONAL SERVICE

- **Service to the Department**
 - Committee Member, CS Undergraduate Curriculum and ABET Accreditation. 2018-2019
 - Committee Member, CS Chair Search. 2017-2018
 - Committee Member, Graduate Admission. 2017-2018
- **Service to the College and University**
 - Committee Member, FRAP-A Award Review. 2018-2019
 - Committee Chair, Bunshaft Lecture. 2017-2018
- **Service to the Profession**
 - *Chair and Organizer*
 - * Proceedings Co-Chair - 14th ACM Conference on Recommender Systems 2020
 - * Publicity Co-Chair - 13th ACM Conference on Recommender Systems 2019
 - * Student Volunteer Co-Chair - 12th ACM Conference on Recommender Systems 2018
 - * Organizer and Co-Chair - 2nd Workshop on Intelligent Recommender Systems by Knowledge Transfer and Learning (RecSysKTL) 2018
 - * Organizer and Co-Chair - 1st Workshop on Intelligent Recommender Systems by Knowledge Transfer and Learning (RecSysKTL) 2017
 - *Program Committee Member*
 - * ACM Recommender Systems Conference (RecSys) 2016–2019
 - * The Web Conference (WWW) 2017–2019
 - * International Conference on Educational Data Mining (EDM), 2017–2019
 - * Educational Data Mining in Computer Science Education (CSEDM) Workshop 2018
 - * 18th IEEE International Conference on Advanced Learning Technologies (ICALT) 2017–2018
 - * The 33rd ACM/SIGAPP Symposium On Applied Computing 2018
 - * The 8th International Conference Learning Analytics and Knowledge 2017–2018
 - * 1st Workshop on Holistic User Modeling 2017
 - * 8th International Workshop on Modelling Social Media (MSM) 2016–2017
 - * iConference 2017
 - * 1st Workshop on Big, Linked and Social Data for Personalized and Intelligent Systems 2016
 - * International Workshop on Social Personalization 2014–2015
 - * 2nd Workshop on New Trends in Content-Based Recommender Systems 2015
 - * DeCAT: Deep Content Analytics Techniques for Personalized and Intelligent Services Workshop 2015
 - * Graph-based Educational Datamining Workshop 2014

- *Grant Proposal Panelist*
 - * Computer and Information Science and Engineering (CISE), National Science Foundation (NSF) 2019
 - * Directorate for Education and Human Resources (EHR), National Science Foundation (NSF) 2017
- *Journal Reviewer*
 - * IEEE Transactions on Knowledge and Data Engineering, User Modeling and User-Adapted Interaction (UMUAI), informatics - Special Issue on Advances in Recommender Systems, Journal of Learning Analytics, ACM Computing Surveys, IEEE Transactions on Learning Technologies, ACM Transactions on Information Systems, IEEE Transactions on Big Data, IEEE Journal of Selected Topics in Signal Processing
- *External Reviewer*
 - * UMUAI, KDD, WWW, RecSys, HyperText, WI, UMAP, and UAI
- *Student Volunteer*
 - * RecSys 2014
- **Service to the Community**
 - * Business Manager of Women in SIS (WIS) Organization at School of Information Sciences of University of Pittsburgh, Oct. 2014 - 2015
 - * Intelligent Systems Program's Representative in Graduate Student Organization, Oct. 2013 - 2015
 - * Co-Founder and Vice-President of Women in SIS (WIS) Organization at School of Information Sciences of University of Pittsburgh, Oct. 2013 - Sep. 2014
- **Memberships**
 - * ACM, IEEE, ACM-W, IEEE Women in Engineering