Bahare Fatemi

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EDUCATION

◇ **Ph.D. in Computer Science**, University of British Columbia, 2017 - present,
Research Area: Relational Reasoning, Graph Representation Learning.
Supervisor: Prof. David Poole.

◇ **M.Sc. in Computer Science**, University of British Columbia, 2015 - 2017, **GPA: 90.8/100**,
Research Area: Machine Learning, NLP, Information Retrieval (Link to thesis).
Supervisor: Prof. David Poole.

◇ **B.Sc. in Software Engineering**, Amirkabir University of Technology, 2011 - 2015, **GPA: 18.46/20**,
Thesis: Efficient elimination ordering for inference in probabilistic graphical models.
Supervisor: Prof. Shahram Khadivi.

WORK
EXPERIENCE

◇ **Research Intern** at **Facebook AI Research**: June 2021 - September 2021, Research on recommender systems for inverse cooking with graphs, **Supervisor:** Adriana Romero-Soriano.

◇ **Research Intern** at **Borealis AI**: June 2020 - October 2020, Research on structure learning for Graph Neural Networks, **Supervisors:** Layla El Asri and Seyed Mehran Kazemi.

◇ **Research Intern** at **Element AI**: November 2018 - May 2020, Research on representation learning for knowledge (hyper)graphs, **Supervisors:** David Vaźquez Bermuḋez and Perouz Taslakian.

◇ **Machine Learning Contractor** at **TELUS**: July 2016 - September 2017, Designed a probabilistic entity-resolution model for searching TELUS billing accounts. Our model improved TELUS's existing search tools (costing hundreds of thousand dollars per year) by 12%, **Supervisor:** Mike Tyndall.

◇ **Software Developer** at **SOHATO**: February 2015 - August 2015, Back-end developer for a large national project in Iran, **Supervisor:** Amir Rasekh.

◇ **Software Engineer Intern** at **TCI Khorasan Razavi**: May 2014 - August 2014, Design and implementation of an automated data management system, **Supervisor:** Davood Zohoorian.

PUBLICATIONS

◇ **Fatemi, B.**, Kazemi, S.M., and El Asri, L. "SLAPS: Self-Supervision Improves Structure Learning for Graph Neural Networks", Submitted to ICML 2021.

◇ **Fatemi, B.**, Taslakian, P., Vaźquez D., and Poole, D. "Knowledge Hypergraph Embedding Meets Relational Algebra", Submitted to ICML 2021.

◇ **Fatemi, B.**, Taslakian, P., Vaźquez D., and Poole, D. "Knowledge Hypergraphs: Prediction Beyond Binary Relations", IJCAI 2020, (link).

◇ **Fatemi, B.**, Taslakian, P., Vaźquez D., and Poole, D. "Knowledge Hypergraphs: Extending Knowledge Graphs Beyond Binary Relations", ECML Workshop on KGRL New Trends, September 2019.

◇ **Fatemi, B.**, Ravanbakhsh, S., Poole, D. "Improved Knowledge Graph Embedding using Background Taxnomic Information", AAAI 2019, (link).

◇ **Fatemi, B.**, Kazemi, S.M., Poole, D. "Record Linkage to Match Customer Names: A Probabilistic Approach", ICML Workshop on StarAI, July 2018, (link) .

◇ Ramanan, N., Kunapuli, G., Khot, T., **Fatemi, B.**, Kazemi, S. M., Poole, D., Kersting, K., Natarajan, S. "Structure Learning for Relational Logistic Regression: An Ensemble Approach", Knowledge Representation and Reasoning (KR-2018) (longer version link).

◇ Kazemi, S.M., **Fatemi, B.**, Kim A., Peng Z., Roy Tora M., Zeng X., Dirks M, Poole, D. "Comparing Aggregators for Relational Probabilistic Models", UAI Workshop on StarAI, August 2017, (link).

◇ **Fatemi, B.**, Kazemi, S.M., Poole, D. "A Learning Algorithm for Relational Logistic Regression: Preliminary Results", IJCAI Workshop on StarAI, July 2016, (link).

TEACHING ASSISTANCE	⋄ Artificial Intelligence, Algorithm Design, Computer Architecture, Data Structures
HONORS AND AWARDS	⋄ Awarded The **President's Academic Excellence Initiative PhD Award**, 2020, (link).
	⋄ Awarded The **Borealis AI**'s graduate fellowship, 2019, (link).
	⋄ Ranked top 5% in Google AI Open Images **Visual Relationship Track**, 2018.
	⋄ Awarded the **4-Year Fellowship** (UBC's Premier PhD Award), 26000 CAD per year, University of British Columbia, Vancouver, Canada, 2017 - 2021.
	⋄ Awarded the **Student Service Award**, University of British Columbia, Vancouver, Canada, 2017.
	⋄ Awarded the **UBC International Tuition Award**, 3200 CAD per year, University of British Columbia, Vancouver, Canada, 2015 - 2021.
	⋄ **Ranked 1st** in **Cumulative GPA** among all students in Software Engineering department, Amirkabir University of Technology.
	⋄ Awarded the **Best Student of the Year** title, Amirkabir University of Technology, 2013 - 2015.
	⋄ Ranked 11th in **19th National Olympiad in Computer Engineering**, Tehran, Iran, 2014.
	⋄ Ranked 22nd in International **Data Mining Cup (DMC)**, Berlin, Germany, 2014.
TECHNICAL SKILLS	⋄ Python, PyTorch, TensorFlow, C/C++, Java, Ruby, MATLAB, Weka, JavaScript, HTML, SQL.
ORGANIZATIONAL ACTIVITIES	⋄ **Women in Machine Learning (WiML) workshop co-organizer:** NeurIPS 2019, Vancouver.
	⋄ **StarAI reading group Organizer:** Computer Science Department, UBC, 2017 - 2018.
	⋄ **Comittee member,** at Focus of Women in CS: 2015 - present.
	⋄ **Program Facilitator,** at GIRLsmart4tech: 2017 - present.
	⋄ **Mentor,** at Girls Learning Code: 2017 - present.
PROFESSIONAL SERVICE	⋄ **Reviewer:** ICLR 2021, AAAI 2021, GRL 2020, Neurocomputing (Journal).
TALKS	⋄ Feb 2021, Knowledge Graphs and Beyond Binary Relations, **UBC**, Vancouver.
	⋄ Dec 2020, Knowledge Hypergraphs: Prediction Beyond Binary Relations, **Facebook AI Research**, Montreal.
	⋄ June 2019, Extending Knowledge Graphs Beyond Binary Relations, **Element AI**, Montreal.