# Bahare Fatemi

Computer Science Department University of British Columbia 2366 Main Mall, Vancouver, BC, Canada Cell Phone: +1-604-446-8959bfatemi@cs.ubc.ca LinkedIn

#### **EDUCATION**

- ♦ Ph.D. in Computer Science, University of British Columbia, 2017 present, Research Area: Graph Representation Learning, Relational Reasoning. **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 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 Bermudez 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:** Dayood Zohoorian.

- Publications & Fatemi, B., Kazemi, S.M., and El Asri, L. "Self-Supervision Improves Structure Learning for Graph Neural Networks", Submitted to ICLR 2021.
  - ♦ Fatemi, B., Taslakian, P., Vaźquez D., and Poole, D. "Knowledge Hypergraph Embedding Meets Relational Algebra", Submitted to AAAI 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

- Honors and  $\diamond$  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 1<sup>st</sup> 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  $\diamond \ \ Python, \ PyTorch, \ TensorFlow, \ C/C++, \ Java, \ Ruby, \ MATLAB, \ Weka, \ JavaScript, \ HTML, \ SQL.$ 

Organizational Activities

- Organizational 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.