

# Jingyi Xu

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## Education

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**Ph.D. in Network Science, with a focus on Computer Science** In Progress

Northeastern University, Boston, US

Research Area: Graph Embedding Techniques.

Adviser: Prof. Tina Eliassi-Rad

**MS in Computer Science** June 2018

University of California, Los Angeles, US

Thesis: "A Semantic Loss Function for Deep Learning  
with Symbolic Knowledge"

Adviser: Prof. Guy Van den Broeck

**BS in Math, minor in Computer Science** April 2014

University of Michigan, Ann Arbor, US

## Publications

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### A. Current Preprints

1) Jingyi Xu, Leo Torres, Tina Eliassi-rad, "In-depth Comparison of Graph Embedding Methods", 2021

### B. Conference Papers

1) Jingyi Xu, Zilu Zhang, Tal Friedman, Yitao Liang, Guy Van den Broeck. "A Semantic Loss Function for Deep Learning with Symbolic Knowledge", *Proceddings of 35<sup>th</sup> International Conference on Machine Learning (ICML)*, 2018

### C. Workshop & Presentations

1) Jingyi Xu, Leo Torres, Tina Eliassi-Rad. "A Closer Look at Graph Embedding for Graph Reconstruction." *Networks 2021: A Joint Conference of Sunbelt and NetSci, Virtual Conference, July 2021. (poster presentation)*

2) Jingyi Xu, Leo Torres, Tina Eliassi-Rad. "Comparing Graph Embedding Algorithms Based on their Primary Choices." *The 2020 International Conference on Network Science (NetSci), Virtual Conference, September 2020. (poster presentation)*

3) Jingyi Xu, Zilu Zhang, Tal Friedman, Yitao Liang and Guy Van den Broeck. "A Semantic Loss Function for Deep Learning Under Weak Supervision". *Conference on Neural Information Processing Systems (NeurIPS), Workshop on Learning with Limited Labeled data: Weak Supervision and Beyond, 2017. LLD Best Paper Award Runner-up.*

## Grants, Fellowships & Scholarships

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2019-2020 First-year PhD Graduate Fellow, Northeastern University.

2012 Wolfson Scholarship (Actuarial Scholarship to Juniors in College), sponsored by UM Math Department.

2007-2010 Singapore Middle School-Based Full Scholarship, sponsored by Singapore Chinese Chamber of Commerce.

## Professional Service

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### **A. Judge & Referee**

1) Triage Judge at The Mathematical Contest in Modeling (MCM) and The Interdisciplinary Contest in Modeling (ICM) 2020.

### **B. Tutoring**

1) Academic Tutor at University Athletic Department of UM, Ann Arbor, MI. 2012-2013

2) Student Leader at Girls in Science and Engineering (GISE) summer camp, Ann Arbor, MI Summer 2012.

## Research Experiences

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1) Research Assistant at Northeastern University	Boston, MA
Comparing Graph Embedding Methods	2019-present

2) Research Scientist Intern at IBM	Virtual
Adversarial Attack on Time-series Network	Summer 2020

3) Research Assistant at UCLA StarAI Lab	Los Angeles, CA
Applying Constraints on Neural Network	2016-2018

4) Research Assistant at UCLA VCLA Lab	Los Angeles, CA
3D Evacuation Route Planning	Summer 2018

## Self-Initiated Project

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1) Algorithm Research (solo)	2018
Models the ride-sharing problem of Uber and Lyft into Mutually Exclusive Set Cover Problem.	

2) Software Construction Project (joint)	2017
Convert research PDFs into audio files	

## Professional Skills

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Python

Machine Learning Platforms: Pytorch, Keras, Tensorflow

JavaScript, front-end Website, Animation, Computer Graphics

Java

C++

## Languages

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Proficient in both Chinese and English