

# Reyhaneh Abdolazimi

Machine Learning Engineer, Syracuse, NY · (315) 439-9999 · rabdolaz@data.syr.edu

**Research Interests.** Graph ML, Machine Learning, Deep Learning, Generative AI, Social Network Analysis, NLP, and Data Augmentations.

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## RESEARCH

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- **Data Lab** [data.syr.edu]  
Mentor: Dr. Reza Zafarani (Syracuse University)  
1) Proposed a noise-enhanced community detection framework that improves communities detected by existing community detection methods; 2) Introduced a noise-enhanced link prediction framework that improves the links predicted by current link prediction heuristics; 3) Presented two tutorials about noise enhancement techniques and applications that get benefit from noise; 4) Introduced a noise-enhanced augmentation technique in Graph Neural Networks to increase accuracy in classification tasks.
- **School of Computer Engineering, Iran University of Science and Technology**  
Mentor: Dr. Hassan Naderi  
1) Introduced a method to find connected components (CCs) of big graphs with fixed MapReduce rounds; 2) Proposed a preprocessing method that reduces 99% of the volume of large graphs to facilitate the detection of CCs.

## SELECTED PUBLICATIONS

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- **Noise-Enhanced Augmentation in Graph Neural Networks**  
Reyhaneh Abdolazimi, Reza Zafarani  
*In Review.*
- **The Advantages of Adding Noise**  
Reyhaneh Abdolazimi, Reza Zafarani  
*TheWebConf (WWW) 2023.*
- **Noise Enhancement: Techniques and Applications**  
Reyhaneh Abdolazimi, Reza Zafarani  
*SDM 2022.*
- **Noise-Enhanced Unsupervised Link Prediction**  
Reyhaneh Abdolazimi, Reza Zafarani  
*PAKDD 2021.*
- **Noise-Enhanced Community Detection**  
Reyhaneh Abdolazimi, Shengmin Jin, Reza Zafarani  
*HT 2020.*

## EDUCATION

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- **Ph.D. Student Computer Science**  
Syracuse University 2017- Spring 2024
- **M.Sc. Computer Software Engineering**  
Iran University of Science and Technology March 2015
- **B.Sc. Computer Software Engineering**  
Iran University of Science and Technology May 2012

## SKILLS

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- **Programming**  
Python, Java, C, C++, Shell Scripting, Haskell, Matlab
- **Libraries**  
PyTorch, TensorFlow, Scikit-learn, Pandas, Numpy
- **Database & Tools**  
MySQL, Neo4j, MongoDB, Hadoop, Cloudera

## EXPERIENCE

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- **Simiagaran Company**  
Big Data Engineer Intern- Tehran, Iran  
Revamped Big Data infrastructure at Mellat Bank using Cloudera Manager and Hadoop, resulting in streamlined data management. Achieved more efficient loan application processing and introduced innovative customer categorization, expediting loan approvals, 2015.
- **Miras Startup**  
Data Scientist Intern – Tehran, Iran  
Sentiment Analysis: Diagnosed the role of people in influencing precious metals prices by analyzing predictions about metal prices on social media (Python), 2015.
- **Mobin Company**  
Big Data Engineer Intern – Tehran, Iran  
Addressed the slow and challenging newspaper grouping task by adopting new tools, including Mahout, Hadoop, Cloudera, and MapR. Accelerated the process, revealing hidden insights and enhancing overall efficiency, 2013.

## AWARDS

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- Nominated for HT Best paper award 2020
- Outstanding Student Scholarship from IUST 2012
- Ranked top 0.34% in National University Entrance Exam among nearly 295,000 participants 2008