Giselle Zeno

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Research Interests

My research interests are in data mining and machine learning on relational data, including information, communication, and social networks.

Education

Purdue University, West Lafayette, IN

Ph.D., Computer Science, December 2021 (expected)
M.S., Computer Science, (requirements completed)

Awards: GEM Fellowship, Frederick N. Andrews Fellowship

Advisor: Prof. Jennifer Neville
Network Learning and Discovery Lab

University of Puerto Rico, Bayamón, PR

B.S., Computer Science, August 2010
Awards: *Magna Cum Laude*, Honors Program scholarship, CS model student

Research Experience

Graduate Research Assistant — Aug 2014 – Present
Purdue University — West Lafayette, IN
Advisor: Prof. Jennifer Neville
Research projects:
- Dynamic graph generative models for temporal networks (2018 – Present)
- Impact of graph structure and attribute correlation on performance of collective inference models (2015 – 2017)
- Stacking temporal classifications to improve accuracy and decrease uncertainty of predictions (2015)

Graduate Research Intern — May 2018 – August 2018
Lawrence Livermore National Laboratory — Livermore, CA
Advisor: Dr. Timothy La Fond
Research Project: Models for motif evolution in dynamic graphs

Graduate Research Intern — June 2015 – August 2015
MIT Lincoln Laboratory — Lexington, MA
Advisor: Dr. William Campbell
Research Project: Collective inference on social networks with unbalanced class labels

Undergraduate Research — Jan 2010 – Aug 2010
University of Puerto Rico — Bayamón, PR
Advisor: Prof. Lillian Bras
Research Project: Analyzed and compared PageRank and ExpertRank (HITS) algorithms for ranking search results

Publications

Giselle Zeno, Timothy La Fond, and Jennifer Neville. 2021. **DYMOND: DYnamic MOtif-NoDes Network Generative Model**. In *Proceedings of the Web Conference 2021 (WWW '21 Companion)*, April 19-23, 2021, Ljubljana, Slovenia.

Giselle Zeno, Timothy La Fond, and Jennifer Neville. 2020. **Dynamic Network Modeling from Motif-Activity**. In *Companion Proceedings of the Web Conference 2020 (WWW '20 Companion)*, April 20-24, 2020, Taipei, Taiwan.

Giselle Zeno and Jennifer Neville. 2016. **Investigating the Impact of Graph Structure and Attribute Correlation on Collective Classification Performance**. *12th International Workshop on Mining and Learning with Graphs (MLG)*, August 14, 2016, San Francisco, CA, USA.

Richard P. Lippmann, William M. Campbell, David J. Weller-Fahy, Alyssa C. Mensch, **Giselle M. Zeno**, and Joseph P. Campbell. 2016. **Finding Malicious Cyber Discussions in Social Media**. *MIT Lincoln Laboratory Journal* 22, 1, (2016), 46-49.

Presentations

The Web Conference (WWW '21) Apr 2021
DYMOND: DYnamic MOtif-NoDes Network Generative Model (Online)

Mining Actionable Insights on Social Networks Workshop, at WWW '20 Apr 2020
Dynamic Network Modeling from Motif-Activity (Online)

Mining and Learning with Graphs Workshop, at KDD '16 Aug 2016
Investigating the impact of graph structure and attribute correlation on collective classification performance

Industry Experience

Software Engineer Intern, Graduate level April 2014 – August 2014
Intel Corp Santa Clara, CA
Designed and implemented Python application for data mining workload profiles in order to guide simulation tracing architecture and workload selection for architectural studies.

Software Developer Jan 2013 – April 2014
by professional services San Juan, PR
Provided consulting services for design and development of Drupal web applications.

Senior Programmer Jan 2013 – May 2013
Evertec San Juan, PR
Implemented and integrated new features to existing web applications. Performed peer code reviews.

Programmer Analyst June 2011 – Jan 2013
First BanCorp San Juan, PR
Gathered requirements, designed, and implemented mobile web applications using Java and Spring framework.

Software Developer July 2009 – May 2011
PGES San Juan, PR
Analyzed requirements, designed, and implemented project management web applications using Drupal and PHP.

Relevant Coursework

Data Mining, Machine Learning, Statistical Network Analysis, Natural Language Processing, Algorithms, Databases, Operating Systems, and Compilers

Skills

Programming Languages:
Proficient in Python, C++, C
Knowledge in Java, Scala, R, MATLAB

Other technical skills:
Python iGraph and NetworkX, Neo4j (graph database), SQL, Hadoop MapReduce, Git version control