

DI (DEREK) JIN

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EDUCATION

- University of Michigan, Ann Arbor, MI** *2021.05*
PhD in Computational Science & Engineering (expected)
Advisor: Danai Koutra
- Carnegie Mellon University, Pittsburgh, PA** *2016.05*
Master in Computational Data Science (MCDS), School of Computer Science
Research advisor: Christos Faloutsos
QPA: 3.67/4.00
- Duke University, Durham, NC** *2014.05*
Master in Electrical & Computer Engineering
GPA: 3.66/4.00
- Beijing Institute of Technology (BIT), Beijing** *2012.07*
Bachelor of Engineering in Automation
Overall GPA: 88.5/100

RESEARCH INTERESTS

Large scale graph mining and summarization, graph representation learning, social network analysis and applied machine learning

PUBLICATIONS

(Under submission) **Di Jin**, Ryan Rossi, Sungchul Kim, Nerseen Ahmed, John Boaz Lee and Danai Koutra. From Community to Role-based Graph Embeddings.

Di Jin, Ryan Rossi and Danai Koutra. node2bits: Compact Time- and Attribute-aware Node Representations for User Stitching. The European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (**ECML-PKDD**), Würzburg, Germany, Sep. 2019.

Di Jin, Ryan Rossi, Eunye Koh, Sungchul Kim, Anup Rao and Danai Koutra. Latent Network Summarization: Bridging Network Embedding and Summarization. ACM SIGKDD Conference of Knowledge Discovery and Data Mining (**KDD**), Anchorage, Aug. 2019.

Di Jin, Mark Heimann, Tara Safavi, and Danai Koutra. Smart Roles: Inferring Professional Roles in Email Networks. ACM SIGKDD Conference of Knowledge Discovery and Data Mining (**KDD**), Anchorage, Aug. 2019.

Yujun Yan, Mark Heimann, **Di Jin** and Danai Koutra. Fast Flow-based Random Walk with Restart in a Multi-query Setting. SIAM International Conference on Data Mining (**SDM**), San Diego, May 2018.

Di Jin and Danai Koutra. Exploratory Analysis of Graph Data by Leveraging Domain Knowledge. IEEE International conference of data mining. (**ICDM**), New Orleans, November 2017.

Di Jin, Aristotelis Leventidis, Haoming Shen, Ruowang Zhang, Junyue Wu and Danai Koutra. PERSEUS-HUB: Interactive and Collective Exploration of Large-Scale Graphs. **Informatics** 2017, 4, 22.
(deployed system on Amazon AWS and Azure)

Di Jin, Mengdi Wang, Yu-Ru Lin. TELELINK: Link Prediction in Social Network Based on Multiplex Cohesive Structures. 2016 International Conference on Social Computing, Behavioral-Cultural Modeling & Prediction and Behavior Representation in Modeling and Simulation (**SBP-BRIMS**), June 2016.

WORKSHOPS AND DEMOS

Di Jin and Danai Koutra. Exploratory Analysis of Networks by Leveraging Domain Knowledge. International School and Conference on Network Science (**NetSci'17**), June 2017.

Di Jin, Christos Faloutsos, Danai Koutra, Ticha Sethapakdi. PERSEUS3: Visualizing and Interactively Mining Large-Scale Graphs. **KDD Workshop on Mining and Learning with Graphs (MLG)**, August 2016.

Danai Koutra, **Di Jin**, Yuanchi Ning, and Christos Faloutsos. PERSEUS: An Interactive Large-Scale Graph Mining and Visualization Tool. **VLDB**, Hawaii, September 2015.

PATENTS

Latent Graph Summarization for User Stitching and Online Anomaly Detection Pending Examination

AWARDS & HONORS

KDD Travel Grant	2019
ICDM Travel Grant	2017
Excellent Graduate Thesis at BIT	2012
Top 3% Level Scholarship (three-time recipient), BIT	2008-2011
Annual Outstanding Student at BIT	2009

TALKS

Exploratory Analysis of Graph Data by Leveraging Domain Knowledge. Oral talk at IEEE International conference of data mining. (**ICDM**), New Orleans, November 2017.

Exploratory Analysis of Graph Data by Leveraging Domain Knowledge. Lightning talk at the International School and Conference on Network Science (**NetSci'17**), June 2017.

PERSEUS: An Interactive Large-Scale Graph Mining and Visualization Tool. Demo at the workshop of “Explore Graduate Studies in Computer Science & Engineering”, University of Michigan, September 2016.

PERSEUS3: Visualizing and Interactively Mining Large-Scale Graphs. Presentation at **KDD Workshop on Mining and Learning with Graphs (MLG)**, August 2016.

PERSEUS: An Interactive Large-Scale Graph Mining and Visualization Tool. Invited group presentation at the Intelligent Systems Program (ISP), University of Pittsburgh, July 2015.

WORK EXPERIENCE

Data science intern at Adobe Research, San Jose, May-August, 2018

Graduate Student Research Assistant, University of Michigan, Ann Arbor, 2016.

SKILLS

Skilled in Hadoop, Spark, Java, Python, Matlab, R.

Familiar with C/C++, Javascript, Assembly, Bash Script, \LaTeX

TEACHING EXPERIENCE

EECS 498: Data Mining, Graduate student instructor (GSI) at UM	<i>2017</i>
MHCI Intro Programming with Media, Intro to Machine Learning (10-601), TA at CMU	<i>2015</i>
ECE-555: Probability in ECE, TA at Duke	<i>2013</i>

SERVICE

PC member for IDEA at **KDD 18'**

Subreviewer for **AAAI' 18, KDD' 18, SDM' 18, AAAI' 18, SDM' 17, WWW' 17**

Reviewer for **PLOS ONE Journal**, open access journal, July 2017

Reviewer for **Applied Network Science Journal**, open access journal, July 2018

OUTREACH

Student volunteer (demo presentation) at the workshop of “Explore Graduate Studies in Computer Science & Engineering” at Computer Science and Engineering, University of Michigan, Ann Arbor. September, 2016 and 2017. The goal of this one-day workshop is to help undergraduate and MS students better prepare for the graduate school application process and broaden participation in computing research.

Presenter for the workshop of “Graduate professional experience in MCDS”, CMU. Topic: highlights on career experience in both industry and academia. September, 2015

STUDENTS MENTORED

Managed a team of 5 students to build and deploy PERSEUS_HUB, an interactive summarization and anomaly detection system.

M.S. students

Haoming Shen, University of Michigan (Mar' - Aug' 17)

Undergraduate students

Aristotelis Leventidis, University of Michigan (Mar' 17 -)

Junyue Wu, University of Michigan (Mar' 17 -)

Ruowang Zhang, University of Michigan (Nov' 16 -)

Charles Wang, University of Michigan (Sep' 16 - Feb' 17)