

# Jiong Zhu

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## CONTACT INFORMATION

University of Michigan  
Computer Science and Engineering  
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## RESEARCH INTERESTS

Graph-based convolutional neural network, graph adversarial and generative techniques.

## EDUCATION

**University of Michigan**, Ann Arbor, MI, USA

- **Ph.D. in Computer Science and Engineering** Aug. 2019 - Present  
Advisor: Danai Koutra

- **M.S. in Electrical and Computer Engineering** Aug. 2017 - Apr. 2019  
Cumulative GPA: 4.0 / 4.0

**Xi'an Jiaotong University**, Xi'an, Shaanxi, China

- **B.Eng. in Automation (Honors Engineering Program)** Aug. 2013 - Jun. 2017  
Cumulative GPA: 89.92 / 100  
Thesis: *Vehicle Detection and Height Estimation Based on Deep Neural Networks*  
Advisor: Zejian Yuan

- **Special Class for Gifted Young** Aug. 2011 - Jun. 2013  
A honors program for nationwide selected junior high school graduates.  
Graduation Ranking: 7 / 126

**National Taiwan University**, Taipei, Taiwan, R.O.C.

- **Undergraduate Semester Exchange Program** Feb. 2016 - Jun. 2016  
Computer Science and Information Engineering Department  
Cumulative GPA: 4.13 / 4.3

## ACADEMIC EXPERIENCE

**University of Michigan**, Ann Arbor, MI, USA

**Graph Exploration & Mining at Scale (GEMS) Lab** Apr. 2018 - Present  
*Research Assistant* Advisor: Danai Koutra

- Collaboratively developed an efficient and interpretable graph convolutional network for identifying the top and bottom quartiles of subjects' psychological phenotype scores from their corresponding fMRI time series. By integrating the idea of node grouping and random walk with restart into the design, this novel architecture is robust to the noise and trainable on small datasets. The work has been published in KDD 2019.

**Computer Science and Engineering Division** Jan. 2019 - Apr. 2019  
*Graduate Student Instructor*

- Teaching assistant for graduate-level course "Advanced Data Mining" (EECS 598-008) with 45 enrollments. Duties include designing and grading course assignments, leading discussion sessions and answering course-related questions.

**Xi'an Jiaotong University**, Xi'an, Shaanxi, China

**Institute of Artificial Intelligence and Robotics** Feb. 2017 - Jun. 2017  
*Undergraduate Thesis Research* Advisor: Zejian Yuan

- Proposed a modified version of Faster R-CNN model with revised Region Proposal Network for the application of vehicle rear detection on car-mounted dash cameras.

**Laboratory for Intelligent Network and Network Security** May. 2014 - Jun. 2015  
*Research Intern* Advisor: Zhongmin Cai

- Conducted experiments which collect accelerometer data of Android phones as regards user's movements in different situations. Examined how collected data can be used on applications including gesture recognition, anomaly detection and identity authentication.

<b>HONORS AND AWARDS</b>	<b>KDD 2019 Student Travel Award</b> , awarded by ACM SIGKDD	<b>2019</b>
	<b>National Second Prize in CUMCM</b> (Contemporary Undergraduate Mathematical Contest in Modeling), awarded to the top 5.7% of 22233 participating teams	<b>2014</b>
	<b>Pengkang Scholarship</b> , awarded to top 2% students by XJTU	<b>2014</b>
	<b>Siyuan Scholarship</b> , awarded to excellent students by XJTU	<b>2013 &amp; 2015</b>
<b>PUBLICATIONS</b>	[1] Yujun Yan, <u>Jiong Zhu</u> , Marlena Duda, Eric Solarz, Chandra Sripada, and Danai Koutra. 2019. <i>GroupINN: Grouping-based Interpretable Neural Network for Classification of Limited, Noisy Brain Data</i> . In Proceedings of the 25th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining ( <b>KDD '19</b> ). ACM, New York, NY, USA, 772-782.	
<b>TECHNICAL SKILLS</b>	<b>Programming:</b> Python, C++, MATLAB, .NET (C# and Visual Basic), Julia <b>Graph Analysis:</b> SNAP and Pegasus <b>GPGPU Computing:</b> TensorFlow <b>Distributed Computing:</b> Hadoop <b>Computer Applications:</b> L <sup>A</sup> T <sub>E</sub> X, Git, Docker and common packages for Unix-like platforms	