Xin Huang

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Education

- **Ph.D., Computer Science (GPA 4.0)** Aug. 2021 – present
  - Texas State University, San Marcos, TX
- **Ph.D., Computer Engineering (GPA 4.0)** May 2018 – July 2021
  - Florida Institute of Technology, Melbourne, FL
  - Transferred to Texas State University with the advisor
- **M.S., Electrical Engineering (GPA 3.85)** May 2016 – Dec. 2017
  - Florida Institute of Technology, Melbourne, FL
- **B.E., Electronic Science and Technology** Sept. 2011 – June 2015
  - South China University of Technology, Guangzhou, China

Work Experience

- **Research Assistant, Texas State University, San Marcos, TX** Aug. 2021 – Present
- **Software Intern – NVGraph, NVIDIA Corporation** Feb. 2021 – July 2021
- **Research Assistant, Florida Institute of Technology, Melbourne, FL** Aug. 2018 – Dec. 2020

Publications

- **I/O-signature-based feature analysis and classification of high-performance computing applications**.
  - JW. Park, **X. Huang**, JK. Lee, T. Hong.
  - Cluster Computing, Sept. 2023.
- **Analyzing and predicting job failures from HPC system log**.
  - JW. Park, **X. Huang**, C.-H. Lee.
  - The Journal of Supercomputing, June 2023.
- **Controlling Epidemic Spread Under Immunization Delay Constraints**.
  - S. Li, **X. Huang**, C.-H. Lee.
  - IFIP Networking Conference, June 2023.
  - Acceptance Rate: 25%
- **Characterizing the Efficiency of Graph Neural Network Frameworks with a Magnifying Glass**.

- **X. Huang**, J. Kim, B. Rees, C.-H. Lee.
- IEEE International Symposium on Workload Characterization (IISWC), Nov. 2022.

➢ **An Efficient and Scalable Algorithm for Estimating Kemeny's Constant of a Markov Chain on Large Graphs**.

- S. Li*, **X. Huang***, C.-H. Lee.
- ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), Aug. 2021.
- Acceptance Rate: 15%

➢ **Estimating Distributions of Large Graphs from Incomplete Sampled Data.**

- S. Li, **X. Huang**, C.-H. Lee.
- IFIP Networking Conference, June 2021.
- Acceptance Rate: 25%

➢ **CrowdQuake: A Networked System of Low-Cost Sensors for Earthquake Detection via Deep Learning.**

- **X. Huang***, J. Lee*, Y.-W. Kwon, C.-H. Lee.
- ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), Aug. 2020.
- Acceptance Rate: 16%

***Equal contribution**

Presentations

➢ **Characterizing the Efficiency of Graph Neural Network Frameworks with a Magnifying Glass** Nov. 2022

- IEEE IISWC 2022, Austin, TX

➢ **An Efficient and Scalable Algorithm for Estimating Kemeny's Constant of a Markov Chain on Large Graphs** Aug. 2021

- ACM KDD 2021, Virtual Conference

➢ **CrowdQuake: A Networked System of Low-Cost Sensors for Earthquake Detection via Deep Learning** Aug. 2020

- ACM KDD 2020, Virtual Conference

➢ **Deep Learning for Earthquake Detection using Low-Cost MEMS Sensors** Sept. 2019

- Kyungpook National University, Daegu, South Korea
- 4th International Conference on Earthquake Early Warning, Seoul, South Korea

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Awards

➢ **2023 TXST CS Research Excellence Award** Apr. 2023

➢ **2022 TXST CS Graduate Academic Excellence Award** Apr. 2022

➢ **ACM KDD 2020 Student Travel Award** Aug. 2020

➢ **Doctoral Graduate Research Assistant Tuition Scholarship** Aug. 2018 – Dec. 2020

Skills

- **Programming**
  - Python, C/C++, CUDA Programming, Shell, MATLAB, R
- **Data Mining & Machine Learning**
  - Feature Engineering, Supervised/Unsupervised Learning, Classification, Regression, Clustering, Anomaly Detection, Deep Learning, Interpretability, Time Series Analysis, Federated Learning
- **Network Analysis & Graph Mining**
  - Graph Neural Networks, Graph Properties, PageRank, Monte Carlo Methods, MCMC
- **Software & Libraries**
  - Scikit-learn, PyTorch , TensorFlow, DGL, PyG, Numba, Microsoft Office, LaTeX, Git, Markdown
- **Operating System**
  - Linux, Windows, MacOS
- **Soft Skills**
  - Adaptability, Quick Learner, Confidence, Self-Management, Strong Work Ethic