



Institute for Data Science



Data Science Seminar Series to Continue this Fall

Stay tuned for upcoming seminars which will be held this Fall 2022 and Spring 2023 on Wednesdays at 4 PM Eastern Time.

To view past seminars you've missed visit our [Youtube Channel](#) and follow us on [Eventbrite](#) to be notified of future events.

OVERVIEW:

- Student Updates
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Page 06 & 07- Welcome to New Faculty Members

A graphic for the Center of Artificial Intelligence featuring a hand interacting with a digital interface and binary code.


**Center of
Artificial
Intelligence**

A graphic for the Center for Big Data featuring a compass rose and the text 'BIG DATA' in a circular arrangement.

**Center for Big
Data**

A graphic for the Cybersecurity Research Center featuring a globe with various security icons and binary code.

**Cybersecurity
Research Center**

A graphic for the Structural Analysis of Biomedical Ontologies Center (SABOC) featuring a group of people standing together.

**Structural
Analysis of
Biomedical
Ontologies
Center (SABOC)**

3rd ACM International Conference on AI in Finance

The AI in Finance conference recently accepted three papers from faculty and students at the Center for Big Data. ICAIF is a scholarly peer-reviewed conference that aims to bring together researchers from both academia and industry to share challenges, advances, and insights on the impact of Artificial Intelligence and Machine Learning on finance. ICAIF is supported by the Association for Computing Machinery (ACM). The conference will be in person in New York City.

"Machine Learning for Earnings Prediction: A Nonlinear Tensor Approach for Data Integration and Completion" Ajim Uddin (New Jersey Institute of Technology); Xinyuan Tao (New Jersey Institute of Technology); Chia-Ching Chou (Central Michigan University); Dantong Yu (New Jersey Institute of Technology)

"Core Matrix Regression and Prediction with Regularization" Dan Zhou (New Jersey Institute of Technology)*; Ajim Uddin (New Jersey Institute of Technology); Zuofeng Shang (New Jersey Institute of Technology); Cheickna Sylla (New Jersey Institute of Technology); Dantong Yu (New Jersey Institute of Technology)

"Temporal Bipartite Graph Neural Networks for Bond Prediction" Dan Zhou (New Jersey Institute of Technology); Ajim Uddin (New Jersey Institute of Technology); Xinyuan Tao (New Jersey Institute of Technology); Zuofeng Shang (New Jersey Institute of Technology); Dantong Yu (New Jersey Institute of Technology)*

Date: November 2-4th, 2022

Location: New York City

Event Page: <https://ai-finance.org/>

Recent Publications

Shantanu Sharma, Sharad Mehrotra, Nisha Panwar, Nalini Venkatasubramanian, Peeyush Gupta, Shanshan Han, Guoxi Wang: QUEST: Privacy-Preserving Monitoring of Network Data. IEEE World Congress on Services (SERVICES) 2022. [click here](#).

Ph.D. Dissertation Defense Announcement

Title: "Towards Ensuring Integrity and Authenticity of Software Repositories"

Sangat Vaidya
07/18/2022

Dissertation advisor: Reza Curtmola



INSTITUTE UPDATES

Book Publications:

David A. Bader (ed.), Massive Graph Analytics, Chapman & Hall / CRC Press, 2022. [click here](#).

Journal Papers Accepted:

"Anomaly Detection in Catalog Streams," Chen Yang, Zhihui Du, Xiaofeng Meng, Xukang Zhang, Xinli Hao, and David A. Bader, IEEE Transactions on Big Data, 2022. [click here](#).

Conference Papers:

"Parallel Suffix Sorting for Large String Analytics," Zhihui Du, Sen Zhang, and David A. Bader, 14th International Conference on Parallel Processing and Applied Mathematics (PPAM), Gdansk, Poland, September 11-14, 2022. [click here](#).

"Arachne: An Arkouda Package for Large-Scale Graph Analytics," Oliver Alvarado Rodriguez, Zhihui Du, Joseph Patchett, Fuhuan Li, and David Bader, The 26th Annual IEEE High Performance Extreme Computing Conference (HPEC), Virtual, September 19-23, 2022. [click here](#).

Master's Student Recent Graduation

MS Thesis Title: "Efficient and Scalable Triangle Centrality Algorithms in the Arkouda Framework."

Joseph Thomas Patchett
August 2022



Big Data Analytics Lab

48th International Conference on Very Large Databases

VLDB is an annual international forum it covers issues in data management, database architectures, graph data management, data privacy and security, data mining, machine learning, AI, and database systems research - all essential technological cornerstones of the emerging applications of the 21st century. Dr. Senjuti Basu Roy is serving as a VLDB Endowment Sponsor Ambassador for the years 2022 and 2023 to facilitate the relationship between VLDB Endowment and Industries.

Location: hybrid, Sydney Australia

Dates: September 5 - 9th

Webpage: <https://vldb.org/2022/>

The Web Conference

The conference series focuses on the future directions of the world wide web and is now recently integrated into ACM SIGWEB. Dr. Senjuti Basu Roy served as the Tutorials Co-Chair of the Web Conference 2022.

Location: Online, hosted by Lyon, France

Dates: April 25-29th 2022

webpage: <https://www2022.thewebconf.org/>

WELCOME TO NJIT

Data Science Department Welcomes New Faculty Members

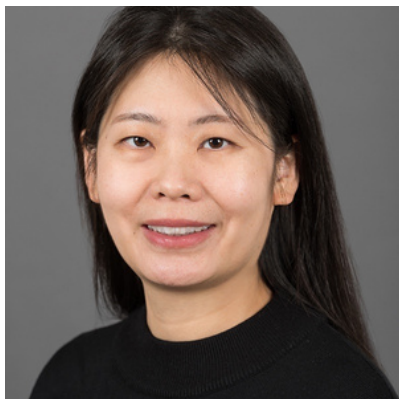


Mengnan Du
Assistant Professor
NJIT

Mengnan Du earned his Ph.D. in Computer Science from Texas A&M University. He has previously worked/interned with MSR, Adobe Research, Intel, Baidu Research, and JD Explore Academy. His research covers a wide range of trustworthy machine learning topics, such as model explainability, fairness, and robustness. He has had more than 40 papers published in prestigious venues such as NeurIPS, AAAI, KDD, WWW, ICLR, and ICML. He received over 1,800 citations with an H-index of 15. Three of his papers were selected for the Best Paper (Candidate) at WWW 2019, ICDM 2019, and INFORMS 2019, respectively. His paper on Explainable AI was highlighted on the cover page of Communications of the ACM, January 2020 issue. More detail can be found at <https://mengnandu.com/>.

WELCOME TO NJIT

Data Science Department Welcomes New Faculty Members



Lijing Wang
Assistant Professor
NJIT

Lijing Wang comes to NJIT from the Computational Health Informatics Program at Boston Children's Hospital and Harvard Medical School, where she was a research fellow. She is interested broadly in computing for social good, applying machine learning, deep learning, and natural language processing (NLP) to solve problems in such diverse domains as epidemics, clinical analysis, bioinformatics, and public health. While earning a Ph.D. at the University of Virginia, she was part of a multidisciplinary team organized by the Centers for Disease Control and Prevention to conduct COVID-19 forecasting. She led the development of methods related to the use of deep-learning techniques to forecast disease trajectories, such as short-term predictions of case count, peak time and peak intensity, etc. She combines deep learning with theory-based causal models which simulate the disease transmission process among a population to better understand disease spread and improve forecasting accuracy and explain the predictions of predictive models. As a research fellow, she explored fine-tuning methods for entity recognition and relation extraction from clinical narratives from Electronic Medical Records (EMRs) using NLP techniques. Her work has been published at top conferences and journals such as Advances in Neural Information Processing Systems (NeurIPS) and AAAI Conference on Artificial Intelligence (AAAI).

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