Curriculum Vitae

Yudi Chen, Ph.D. Candidate
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RESEARCH INTERESTS

- Human-centered decision support for infrastructure resilience
- Smart infrastructure digital twin through social and physical sensing
- Information integration through Bayesian inference and machine learning
- Data-driven framework for assessing societal resilience

EDUCATION

- Ph.D. Candidate, George Mason University, US, Expected graduation: July 2021
    - Thesis: Enhanced decision support for resilient infrastructure through social media analytics
    - Supervisor: Dr. Wenying Ji
- Master of Mechanical Engineering, Beihang University, China, 2015
    - Thesis: Damping modeling and analysis of vibration characteristics for shrouded blades
    - Supervisor: Dr. Yanrong Wang
- Bachelor of Mechanical Engineering, Beihang University, China, 2010

APPOINTMENT

- Graduate Research Assistant, George Mason University, US, 2018 – Present
- Teaching Assistant, University of Cincinnati, US, 2017 – 2018
- Project Manager, XECA Turbo Technologies, China, 2017

PUBLICATIONS

Peer-reviewed Journal Publications

1. **Yudi Chen**, Qi Wang, and Wenying Ji. "Rapid Assessment of Disaster Impacts on Highways Using Social Media." *ASCE Journal of Management in Engineering*, 36(5), 04020068. (Editor's Choice, September 2020)
2. **Yudi Chen** and Wenying Ji. "Rapid Damage Assessment Following Natural Disasters Through Information Integration." *ASCE Natural Hazards Review*, [Revision submitted, March 2021].
3. **Yudi Chen** and Wenying Ji. "Enhanced Situational Assessment of Critical Infrastructure Following Disasters Using Social Media." *ASCE Journal of Management in Engineering* [Revision submitted, April 2021].

4. **Yudi Chen**, Yun Li, Zifu Wang, Alma Joanna Quintero, Chaowei Yang, and Wenying Ji. "Social Media-based Public Opinion Reasoning on Society Reopening Amid COVID-19." *ASCE Natural Hazards Review.* [Under review, February 2021].
5. **Yudi Chen** and Wenying Ji. "Sentiment-based Urgency Evaluation of Public Demands for Prioritizing Infrastructure Restorations." *International Journal of Disaster Risk Reduction*. [Under Review, April 2021]

Peer-reviewed Conference Publications

1. **Yudi Chen**, Angel Umana, Chaowei Yang, and Wenying Ji. "Condition Sensing for Electricity Infrastructures Through Mining Public Topics from Social Media" The 18th annual conference on Information Systems for Crisis Response and Management (ISCRAM 2021). Blacksburg, VA, US.
2. **Yudi Chen**, Qi Wang, and Wenying Ji. "Assessing Disaster Impacts on Highways Using Social Media: Case Study of Hurricane Harvey", ASCE Construction Research Congress 2020, AZ, US.
3. **Yudi Chen**, Qi Wang, and Wenying Ji. "A Bayesian-based Approach for Public Sentiment Modeling." IEEE Winter Simulation Conference 2019, MD, US.
4. Jing Liu, **Yudi Chen**, Duanshun Li, Noseong Park, Kisung Lee, and Dongwon Lee. "Predicting Influence Probabilities Using Graph Convolutional Networks." IEEE International Conference on Big Data 2019, CA, US.
5. **Yudi Chen** and Wenying Ji. "Public Demand Estimation Following Disasters Through Integrating Social Media and Community Demographics." IEEE Winter Simulation Conference 2021. [In review]

GRANTS

- Decision Support System for Enhanced Infrastructure System Serviceability Following Natural Disasters: Social Media Mining Approach, 2019-2021. Supported by Thomas F. and Kate Miller Jeffress Memorial Trust, $120,000. Role: Funded Researcher.
- Human-centered Support Through Big Data Analytics, 2021. Supported by George Mason University, $10,000. Role: Principal Investigator.

UNIVERSITY TEACHING

- CEIE 679 Construction Simulation (graduate/undergraduate), Spring 2019
- CEIE 574 Construction Informatics(graduate/undergraduate), Fall 2018

MENTORSHIP

- Syed Arafath Hussian, Master, George Mason University, February 2020 – March 2020
- Angel Umana, Undergraduate, George Mason University, June 2019 – May 2020

PRESENTATIONS

- Construction Research Congress 2020, Tempe, AZ, US, March 2020
- Winter Simulation Conference 2019, National Harbor, MD, US, December 2019
- CEI Member Appreciation Mixer, George Mason University, VA, US, September 2019
- CEI Luncheon, George Mason University, VA, US, April 2019

PROFESSIONAL SERVICE

Journal Reviewer

- Advanced Engineering Informatics, 2021

Conference Reviewer

- ASCE International Conference on Computing in Civil Engineering, 2019
- ASCE Construction Research Congress, 2020
- Annual Conference on Information Systems for Crisis Response and Management, 2021
- European Conference on Computing in Construction, 2021

AWARDS

- Michael J. Casey Scholarship ($1,000), George Mason University, 2021
- Provost Dissertation Completion Grant ($10,000 + 3 Credits), George Mason University, 2021
- Travel Award ($450), George Mason University, 2019
- Graduate National Award ($5000), Ministry of Education in China, 2014

REFERENCES

Wenying Ji, Assistant Professor
Department of Civil, Environmental, and Infrastructure Engineering
Volgenau School of Engineering
George Mason University
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Chaowei Yang, Professor
Director of NSF spatiotemporal innovation center
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