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RESEARCH INTERESTS

- Enhanced decision support on critical infrastructure in disasters
- Human behaviors in emergency environments for societal resilience
- Information integration through Bayesian inference and machine learning
- Smart infrastructure digital twin through social and physical sensing

EDUCATION

- PhD student, George Mason University, US, 2018 – 2021 (Expected)
 - Thesis: Decision support for resilient infrastructure through social media analytics
 - Supervisor: Wenying Ji
- Master of Mechanical Engineering, Beihang University, China, 2012 – 2015
 - Thesis: Damping modeling and analysis of vibration characteristics for shrouded blades
 - Supervisor: Yanrong Wang
- Bachelor of Mechanical Engineering, Beihang University, China, 2006 – 2010

APPOINTMENT

- Graduate Research Assistant, George Mason University, US, 2018 – Present

PUBLICATION

Journal Publication

1. **Yudi Chen** and Wenying Ji. "Information Integration for Assessing Public Needs on Infrastructure Services." *International Journal of Disaster Risk Reduction*. [In preparation].
2. **Yudi Chen** and Wenying Ji. "Modeling Public Sentiment Using Social Media for Postdisaster Prioritization of Infrastructure Restorations." *Reliability Engineering and System Safety*. [In preparation].
3. **Yudi Chen** and Wenying Ji. "Rapid Damage Assessment Following Natural Disasters Through Information Integration." *Natural Hazards Review*, [Under review, September. 27, 2020].
4. **Yudi Chen** and Wenying Ji. "Human-centered Sensing of Infrastructure Conditions Through Mining Public Topics from Social Media." *Journal of Management in Engineering* [Under revision].

5. **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." *International Journal of Digital Earth*. [Under review, December 8, 2020].
6. **Yudi Chen**, Qi Wang, and Wenying Ji. "Rapid Assessment of Disaster Impacts on Highways Using Social Media." *Journal of Management in Engineering*, 36(5), 04020068. (Editor's Choice, Sep. 2020)

Conference Publication

1. **Yudi Chen** and Wenying Ji. "Integrating Social Media and Population Displacement for Estimating Public Needs on Infrastructures." Submitted to Construction Research Congress, 2022.
2. **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, US. [under review].
3. **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.
4. **Yudi Chen**, Qi Wang, and Wenying Ji. "A Bayesian-based Approach for Public Sentiment Modeling." Winter Simulation Conference 2019, MD, US.
5. 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.

GRANT PROPOSAL APPLICATION

- 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.
- Dissertation Completion Grant (\$10,000 + 3 Credits), George Mason University, Spring 2021

TEACHING RECORD

- Guest speaker in CEIE 679 Construction Simulation, 2019 Spring
- Guest speaker in CEIE 796 Data Analytics in Construction, 2018 Fall

MENTORSHIP

- Syed Arafath Hussian, Graduate, George Mason University, Spring 2020.
- Angel Umana, Undergraduate, George Mason University, June 2019 – May 2020

PRESENTATION

- Construction Research Congress 2020, Tempe, AZ, US, Mar. 2020
- Winter Simulation Conference 2019, National Harbor, MD, US, Dec. 2019
- CEI Member Appreciation Mixer, George Mason University, VA, US, Sep. 2019
- CEI Luncheon, George Mason University, VA, US, Apr. 2019

SERVICE

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

AWARD

- NSF Travel Award (\$450), George Mason University, 2019
- Graduate National Award (\$5000), Ministry of Education in China, 2014