Chenguang Wang

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https://c-steve-wang.github.io/

EDUCATION

Ph.D. Civil Engineering, Stony Brook University — Jan 2023–Present

M.S. Computer Science, Stevens Institute of Technology — Sep 2021–Jan 2023

B.S. Computer Science, Xi'an Jiaotong University — Sep 2016–Jun 2020

EXPERIENCE

Doctoral Student, Stony Brook University, Department of Civil Engineering — Jan 2023 – Present

Supervised by Prof. Susu Xu on Disaster Response

- Investigate and implement advanced Large Language Models and AI technologies in disaster response, focusing on integrating crowd-sensing data to enhance real-time situational awareness, response efficiency, and risk assessment.

Research Assistant, Analytics and Information Security Lab — March – Dec 2022

Supervised by Prof. Xiaojiang Du on IoT Security

- Design an autonomous drone system with advanced algorithms for real-time monitoring of smart home IoT devices, focusing on detecting unauthorized state changes and irregular activities from side-channel signals.

Research Assistant, MoE Key Lab for Intelligent Networks & Network Security — Feb 2020 – Jun 2021

Supervised by Prof. Zhongmin Cai on Cyber-Physical System

- Implemented YOLO for gaze tracking on screens via smart glasses data, thereby enabling precise identification of user viewing points and interactions in video simulations for academic insights.

AWARDS

ECE Research Scholarship Award, Analytics and Information Security Lab — 2022

Provost Doctoral Fellowship, Stevens Institute of Technology — 2022

COMPETENCES

Languages Chinese (*native*), English (*proficient*)

Techniques Python, Matlab, C/C++, Linux, git, HTML/CSS/Javacript, LaTeX, PyTorch, QGIS

PUBLICATIONS

[1] **Wang, C.**, Liu, Y., Zhang, X., Li, X., Paramygin, V., Subgranon, A., Sheng, P., Zhao, X., Xu, S. "Causality-informed Rapid Post-hurricane Building Damage Detection in Large Scale from InSAR Imagery." In *Proceedings of the 8th ACM SIGSPATIAL International Workshop on Security Response using GIS 2023*, pp. 7-12, 2023. https://doi.org/10.1145/3615884.3629422

[2] Alami, M., Gunay, S., Mosalam, K., Vargas, L., Hassan, W., Merino-Peña, Y., Burton, H., Alhawamdeh, B., Lahna, T., Xu, S., Marinkovic, M., Archbold, J., Iturburu, L., Martin, A., Bektas, N., Ceferino, L., Duran, B., Nobahar, M., Romão, X., **Wang, C.**, Zhou, G., Zaoui, A., Kijewski-Correa, T. "StEER: Oukaïmedene Morocco Preliminary Virtual Reconnaissance Report (PVRR)", in *StEER 2023 Oukaïmedene Morocco Earthquake*, DesignSafe-CI, 2023. https://doi.org/10.17603/ds2-gw0j-6757

[3] **Wang, C.**, Liu, Y., Zhang, X., Li, X., Paramygin, V., Sheng, P., Zhao, X., Xu, S. "Scalable and Rapid Building Damage Detection after Hurricane Ian using Causal Bayesian Networks and InSAR Imagery." In *International Journal of Disaster Risk Reduction*, 104371, 2024. https://doi.org/10.1016/j.ijdrr.2024.104371

[4] **Wang, C.**, Engler, D., Li, X., Hou, J., Wald, D.J., Jaiswal, K., Xu, S. "Near-real-time Earthquake-induced Fatality Estimation using Crowdsourced Data and Large-Language Models." In *International Journal of Disaster Risk Reduction*, 111, 104680, 2024. https://doi.org/10.1016/j.ijdrr.2024.104680

[5] Garcia, S., Jana, A., Erazo, K., **Wang, C.**, Xu, S., Romão, X., Kyprioti, A.K.P., Petreski, B., Bektas, N., Lahna, T., Diekmann, A., Dang, H., Arora, P., Mosalam, K., Wolohan, K. "StEER: 2024 Hualien City Earthquake Annotated Media Repository." *Designsafe-CI*, 2024. https://doi.org/10.17603/DS2-4XV5-QC41