Wenxin Jiang

Ph.D. Student
Elmore Family School of Electrical and Computer Engineering
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RESEARCH THEME

My research interests lie in *Software Engineering* and *Trustworthy AI*, especially the reusability and reliability of deep learning pre-trained models (PTMs).

EDUCATION

Ph.D, Electrical and Computer Engineering 2020–present
Purdue University, West Lafayette, IN

B.Sc. Applied Physics 2016–2020
Southeast University, Jiangsu, China

Study Abroad Program, Engineering Physics 2019
University of California, Santa Barbara, CA

PROFESSIONAL EXPERIENCE

Graduate Research Assistant 2021–present
Purdue University — Advised by James C. Davis

TensorFlow Model Developer 2021–present
Purdue University × Google

REFEREED CONFERENCE PUBLICATIONS

[1] Montes, Peerapatanapokin, Schultz, Guo, **Jiang**, and Davis. *Discrepancies among Pre-trained Deep Neural Networks: A New Threat to Model Zoo Reliability.* Proceedings of the 30th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering — Ideas, Visions, and Reflections track (**ESEC/FSE-IVR'22**).

REFEREED WORKSHOPS, DEMONSTRATIONS, AND COMPETITIONS

[1] **Jiang**, Synovic, Sethi, Indarapu, Hyatt, Schorlemmer, Thiruvathukal, and Davis. *An Empirical Study of Artifacts and Security Risks in the Pre-trained Model Supply Chain.* Proceedings of the 1st ACM Workshop on Software Supply Chain Offensive Research and Ecosystem Defenses (**SCORED'22**).

[2] Synovic, Hyatt, Sethi, Thota, Shilpika, Miller, **Jiang**, Amobi, Pinderski, Laufer, Hayward, Kingensmith, Davis, and Thiruvathukal. *Snapshot Metrics Are Not Enough: Analyzing Software Repositories with Longitudinal Metrics.* Proceedings of the 37th IEEE/ACM International Conference on Automated Software Engineering — Demonstrations track (**ASE-Tool Demonstrations'22**).

[3] Veselsky, West, Ahlgren, Thiruvathukal, Klingensmith, Goel, **Jiang**, Davis, Lee, and Kim. *Establishing trust in vehicle-to-vehicle coordination: a sensor fusion approach.* roceedings of the 2nd Workshop on Data-Driven and Intelligent Cyber-Physical Systems for Smart Cities (**HotMobile'22**).

TECHNICAL REPORTS

[1] Banna, Chinnakotla, Yan, Vegesana, Vivek, Krishnappa, **Jiang**, Lu, Thiruvathukal, and Davis. *An Experience Report on Machine Learning Reproducibility: Guidance for Practitioners and TensorFlow Model Garden Contributors*. `https://arxiv.org/abs/2107.00821`. 2021.

UNDER SUBMISSION

[1] **Jiang**, Synovic, Hyatt, Schorlemmer, Sethi, Lu, Thiruvathukal, and Davis. *An Empirical Study of Pre-Trained Model Reuse in the Hugging Face Deep Learning Model Registry*. Proceedings of the ACM/IEEE 45th International Conference on Software Engineering (**ICSE'23 *under submission***).

[2] **Jiang**, Banna, Vivek, Goel, Synovic, Klingensmith, Thiruvathukal, and Davis. *Challenges and Practices of Deep Learning Model Reengineering: A Case Study on Computer Vision*. Proceedings of the ACM/IEEE 45th International Conference on Software Engineering (**ICSE'23 *under submission***).

TEACHING ASSISTANT

ECE 595 – Advanced Software Engineering Spring 2022
Purdue University

INVITED TALKS

Deep Learning Model Reengineering: An Exploratory Case Study on Computer Vision 2022
Purdue University Programming Languages Group, Seminar

AWARDS AND RECOGNITION

Study Abroad Fellowship, Southeast University 2019
Second prize, Vision Guided Robot Competition, Southeast University 2019
Distinction Award, Southeast University 2018
Third prize, Structual Innovation Invitation Competition, Southeast University 2017

ACTIVITIES AS A REFEREE

Sub-Reviewer: ASE'22 2022

DEPARTMENTAL SERVICE

Director, Southeast University TV Station 2016-2019

Member, Southeast University Physics Student Council 2016-2017

PROFESSIONAL MEMBERSHIPS

Student member, Association for Computing Machinery (ACM)

Student member, Institute of Electrical and Electronics Engineers (IEEE)