

Wenxin Jiang

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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 <i>Purdue University, West Lafayette, IN</i>	2020–present
B.Sc. Applied Physics <i>Southeast University, Jiangsu, China</i>	2016–2020
Study Abroad Program, Engineering Physics <i>University of California, Santa Barbara, CA</i>	2019

PROFESSIONAL EXPERIENCE

Graduate Research Assistant <i>Purdue University — Advised by James C. Davis</i>	2021–present
TensorFlow Model Developer <i>Purdue University × Google</i>	2021–present

REFEREED CONFERENCE PUBLICATIONS

- [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**).
- [2] 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, Jajal, Schorlemmer, Tewari, Pareek, Thiruvathukal, and Davis. *PTMTorrent: A Dataset for Mining Open-source Pre-trained Model Packages*. Proceedings of the 20th International Conference on Mining Software Repositories (**MSR'23**).
- [2] **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**).

- [3] 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**).
- [4] Veselsky, West, Ahlgren, Thiruvathukal, Klingensmith, Goel, **Jiang**, Davis, Lee, and Kim. *Establishing trust in vehicle-to-vehicle coordination: a sensor fusion approach*. Proceedings of the 23rd Annual International Workshop on Mobile Computing Systems and Application (**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**, Banna, Vivek, Goel, Synovic, Klingensmith, Thiruvathukal, and Davis. *Challenges and Practices of Deep Learning Model Reengineering: A Case Study on Computer Vision*. Empirical Software Engineering (**EMSE under submission**).

TEACHING ASSISTANT

ECE 595 – Advanced Software Engineering Purdue University	Spring 2022
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INVITED TALKS

Deep Learning Model Reengineering: An Exploratory Case Study on Computer Vision Purdue University Programming Languages Group, Seminar	2022
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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, Structural Innovation Invitation Competition, Southeast University	2017

ACTIVITIES AS A REFEREE

Sub-Reviewer: ESEC/FSE'23	2023
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)