WENXIN JIANG

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EDUCATION

Ph.D., Electrical and Computer Engineering, Purdue University, IN, USA *Aug 2020 - present*
GPA: **3.8/4.0**, Supervised by Prof. **James C. Davis**

B.S., Applied Physics, Southeast University, Jiangsu, China *Aug 2016 - Jun 2020*
- **Study Abroad Program**, *GPA:* **3.8/4.0**, Engineering Physics, UC Santa Barbara, CA, USA *Mar 2019 - Jun 2019*

Relevant **Course Work**: Data Structure, Artificial Intelligence, Deep Learning, Software Engineering, Computer Network Systems, Operating Systems, Compilers, Computational Models & Methods

RESEARCH & WORK EXPERIENCE

Software engineering for Vision Transformers, *Research Assistant* *Feb 2022 - present*
- **Propose and solve** recent problems of vision transformers from software engineering perspectives.

Empirical Study on Computer Vision Reengineering, *Research Assistant* *Jan 2021 - Mar 2022*
- **Lead a team** of 6 students, collect open-source bug reports, and analyze the dataset.
- Conduct a case study on a reengineering team cooperating with Google, and present findings in a paper.

TensorFlow Model Garden Team (Google x Purdue), *ML engineer*, *team leader* *Sep 2021 - present*
- **Lead a team** of 6 students reproducing a recent computer vision model, *i.e.,* Yolox.
- Contribute to development and testing of model architecture and component integration.

PROJECTS

Implemented scanner, parser, optimizer and code generator of a **compiler** for a small programming language using **Java** and **ANTLR**, *Compiler project* *Fall 2021*

Implemented process synchronization, memory management, and file system using **C**, *OS project* *Fall 2021*

Built customized dataset and data loader, and typical CV and NLP algorithms using **Pytorch**, *DL project* *Spring 2021*

Analyzed three **ML testing** tools on TensorFlow program bugs, and write a literature review, *SE project* *Spring 2021*

Implemented data link, network layer routing and forwarding, reliable TCP transport, and client-server communication using **C and Python**, *Network project* *Spring 2021*

Reproduced weakly supervised instance segmentation models, using **Pytorch**, *AI project* *Fall 2020*

Built a web page with scraping and visualizing epidemic records, using **Python, Flask**, *Personal project* *Spring 2020*

PUBLICATIONS

1. 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*. ASE-Tool (**22**).

2. Veselsky, West, Ahlgren, Thiruvathukal, Klingensmith, Goel, **Jiang**, Davis, Lee, and Kim. *Establishing trust in vehicle-to-vehicle coordination: a sensor fusion approach*. DI-CPS (**22**).

3. 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.