JIAWEI LIU

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EDUCATION

Tongji University, Shanghai, China

B.Eng. in Computer Science

University of Illinois at Urbana-Champaign, IL, US

Ph.D. in Computer Science

Sept. 2017 - Jul. 2021

Aug. 2021 (expected)

Advisor: Lingming Zhang

RESEARCH EXPERIENCES

Research Assistant at PL-FM-SE Group, UIUC

Advisors: *Prof.* Lingming Zhang

Apr.2021-Present Topic: Compiler Fuzzing

Research Assistant at Systems Group, New York Univ.

Jul.2020-Mar.2021 Topic: Video Analytic Systems

Advisors: *Prof.* Jinyang Li (Remote advising due to COVID-19)

Research Assistant at Center on Frontiers of Computing Studies, Peking Univ.

Jan. 2020-Aug. 2020

Advisors: *Prof.* Hao Dong (Peking Univ.), *Prof.* Luo Mai (Univ. of Edinburgh)

Topic: Pose Estimation Systems

WORK EXPERIENCES

Research Intern at DAMO Academy, Alibaba-Inc

Advised by: Dr. Yuanwei (Kevin) Fang, Prof. Yuan Xie

Mar. 2021-Present Topic: Distributed Systems

Intern at AI Lab, ByteDance Inc.

Advised by: Guanzhe Huang, Yuchu Luo, Dr. Chuanxiong Guo

Topic: Inference Serving

Teaching Assistant, Computer Graphics, Tongji Univ.

Lecturer: Prof. Jungiao Zhao, Course link: http://cs1.tongji.edu.cn/courses/CS100433/

Sept. 2019-Jan. 2020

Feb.2020-Jul.2020

NOTABLE ACHIEVEMENTS

Qidi Innovation Scholarship of Tongji University (Top 1%)	Oct.2020
Selected Entrant for 2020 Google Machine Learning Winter Camp [†]	Dec.2019
Winner of International Data Science Hackathon (Chinese Region), Covestro [†] [news]	Nov.2019
National 2nd Prize and Prince-level 1st Prize in RoboMaster, DJI Inc.	Aug.2019
National $3rd$ Prize of Chinese Collegiate Computing Competition [†]	Jul.2019
Honorable Prize of COMAP's Mathematical Modeling Contest $(MCM/ICM)^{\dagger}$	Feb.2019
2nd Prize of Outstanding Student Scholarship, Tongji Univ.	Nov.2018
National 2nd Prize (0.75 \sim 3.84%) and Province-level 1st Prize of Chinese Modeling Contest [†]	Nov.2018
†: Served as the team leader.	

OPEN-SOURCE PROJECTS

Systems: HyperPose (1k stars), ThreadPools, JustRelaxFileSystem, TorchFlow (ML snapshot manager)

Computer Vision: MagicFilter (human matting), Action Recognition on DVS, Robot Armor Detector

Others: Bimulator (simulation, ray tracing, and OpenGL pipeline), Research Reading, Computer Science Notes I also contributed to open-source ML systems like TensorFlow and TVM. Please check my GitHub Profile for details.

SKILL STACK

Proficient in software optimization/engineering, parallel programming, hacking ML systems and ML.

Common: C++ (expert), Python, Go, Rust, Docker, Shell, Git, SQL, IATEX, Grafana, LLVM, GDB, Valgrind

High-Perf. Computing: CUDA, C++ Thread Library, Protobuf, gRPC, Kafka, Protobuf, Thrift, OpenMP

Machine Learning Systems: PyTorch, TensorRT, TensorFlow, TVM, ONNX, OpenCV