Yannan Li

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EDUCATION

M.S., Computer Science   *2018 - 2021*
University of Southern California (USC)
GPA: 3.74/4.0

B.E., Computer Science   *2013 - 2017*
University of Science and Technology of China (USTC)
GPA: 3.84/4.3   Rank: 7/109

PROJECT EXPERIENCE

Constraint-Based Precomputation on Energy-Harvesting Devices   *2019 - 2020*
- Developed a sound static analysis to identify precomputation opportunities
- Used an SMT solver based method to optimize the precomputation policy
- Applied a semantic-preserving transformation to generate the optimized program
- Implemented our method in the LLVM compiler

Game: Cooking Journey [Click for video]   *2019 - 2020*
- Wrote a game, Cooking Journey, combing both cooking and racing games using Unity
- Collaborated with other three students
- Invited by Prof. Mike Zyda to attend USC Games Showcase

Privacy-Preserving Image Trading through Crowdsourcing   *2016 - 2017*
- Led a five-member team
- Designed a privacy-aware image trading system based on crowdsourcing
- Designed an image selection method based on the CNN model
- Minimized computation and communication overhead in both servers and clients sides
- Experiments show the high quality of our selected datasets and the high efficiency of our methods

Implemented a MIPS-Based CPU on FPGA   *2015*
- Implemented a five-stage pipeline MIPS-based CPU which had been verified on the FPGA

SELECTED PUBLICATION

1. Constraint-Based Analysis for Energy Optimization via Precomputation
Yannan Li, Chao Wang
(Under Submission)

2. CrowdBuy: Privacy-friendly Image Dataset Purchasing via Crowdsourcing
Lan Zhang, **Yannan Li**, Xiang Xiao, Xiang-Yang Li, Junjun Wang, Anxin Zhou, Qiang Li
*IEEE International Conference on Computer Communications (**INFOCOM' 18**)*

TECHNICAL SKILLS

Programming Languages	C, C++, Java, Python, Shell, Verilog HDL, TensorFlow, HTML
Compile	LLVM, Java Soot (Static Analysis, Program Transformation)
Verification/Synthesis	Z3 (SAT/SMT Solver), SyGus (Program Synthesis)
Game Engine	Unity