Yanze Li

ASER, Parasol Lab
Texas A&M University
College Station, Texas, USA

Email: yanzeli@tamu.edu
Web: https://liyz.pl

RESEARCH INTERESTS

My area of interest are **Programming Language** and **Static Analysis**. I develop static analysis tools that can scale to large codebase and various code changes with an emphasis on concurrency-related bugs (race detection, deadlock detection, etc.). Recently, I'm switching my focus to something more "formal", such as verification, type system, etc., and I'm actively looking for PhD openings in these areas. My goal is to improve programming productivity and software reliability from a PL perspective.

EDUCATION

M.S. Computer Science, Texas A&M University, 2020
Thesis: Efficient and Scalable Whole Program Race Detection for Java and Android Programs
Advisor: Jeff Huang
GPA: 4.0/4.0

B.Eng. Electrical Engineering, Huazhong University of Science and Technology, 2017
GPA: 3.67/4.0 Major GPA: 3.81/4.0

PUBLICATIONS

SC'20 *"OMPRacer: A Scalable and Precise Static Race Detector for OpenMP Programs"*
Bradley Swain, **Yanze Li**, Peiming Liu, Ignacio Laguna, Giorgis Georgakoudis, Jeff Huang

ICSE'19 (Demo Track) *"SWORD: A Scalable Whole Program Race Detector for Java"*
Yanze Li, Bozhen Liu, Jeff Huang

PROJECTS

LLVMRace An LLVM-based race detection framework, found several previously unkown bugs in Linux kernel, Redis, memcached, and GraphBLAS.

OMPRacer An LLVM-based race detector for OpenMP programs, using the SMT sovler and value-flow analysis to reason about interprocedure array accesses.
Found several previously unknown bug in ECP proxy applications and covid-sim (the simulation program for COVID-19).

Crappie An incremental race detection engine that scales to distributed systems and Android apps and has been implemented as a Intellij IDEA plugin.

SWORD A whole program race detector for Java (source code/bytecode) and has been implemented as a Eclipse plugin.

HONOR AND AWARDS

2019 ACM SIGSOFT CAPS Award

2017 Excellent Graduated Student at HUST

2015 Scientific Research Innovation Scholarship

2014 3rd Place, China University Cloud Computing Innovation Competition

SERVICE

Sub-Reviewer

2020 OOPSLA

2019 PLDI, ICSE, FSE, OOPSLA

2018 TSE