Lixun **Zhang**

☐ (972) 804-9382 | ✉ lixun.zhang@amd.com | ⬡ https://github.com/zhanglx13

Education

The University of Texas at Austin   *Austin, Texas*

PH.D. IN COMPUTER SCIENCE   *Jan. 2013 - May. 2022*

- Dissertation: A Particle Filter Program Generator on GPU.

Tsinghua University   *Beijing, China*

B.S. IN ENGINEERING, AUTOMATION   *Sep. 2008 - Jul. 2012*

Work Experience

Advanced Micro Devices, Inc.   *Austin, Texas*

COMPILER ENGINEER   *May. 2022 - current*

- Studied the factors affecting verification errors for convolution end-to-end tests with fp16 data type.
- Improved CI infrastructure for multi-arch testing.
- Developed an automation framework to generate convolution end-to-end tests.

Mathworks   *Natick, MA*

COMPILER ENGINEER INTERN   *Jun. 2016 - Aug. 2016*

- Developed a C++ pass to analyze for loops in the IR to find loop invariant variables.
- Generated intrinsic functions which expand to OpenMP pragmas in the code generation phase.
- Performed timing experiments of the generated code on multi-core systems.

The University of Texas at Austin   *Austin, Texas*

GRADUATE RESEARCH ASSISTANT   *Jun. 2013 - Dec. 2021*

- Implemented Monte Carlo Localization on heterogeneous systems
- Implemented particle filter on heterogeneous systems
- Developed an analytical performance model for GPGPU kernels
- Develop a laser power control system for Selective Laser Sintering

Skills

Programming   C/C++, bash, CUDA, Hip, LaTeX

Languages   English, Chinese