Jianping Zeng

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Education

- **Purdue University** — West Lafayette, IN
  Ph.D. in Computer Science — *Aug. 2019 – Now*
- **Virginia Tech** — Blacksburg, VA
  Ph.D in Computer Science; Transferred to Purdue University — *Aug. 2018 – May. 2019*
- **Huazhong University of Science and Technology** — Wuhan, China
  Master of Science in Computer Science; GPA: 3.7 — *Sept. 2014 – June. 2017*
- **Jiaxing University** — Jiaxing, China
  Bachelor of Science in Computer Science; GPA: 3.7 — *Sept. 2010 – June. 2014*

Experience

- **Purdue University** — West Lafayette, IN
  Graduate Research Assistant — *Aug 2019 - Present*
- **Virginia Tech** — Blacksburg, VA
  Graduate Research Assistant — *Aug 2018 - Aug 2019*
- **Alibaba T-Head Semiconductor** — Hangzhou, China
  Compiler Engineer — *Dec 2017 - July 2018*
  - **C-Sky backend of GCC/LLVM**: engaged in improving GCC backend, developing LLVM backend for C-Sky CPU, and tuning GCC/LLVM optimizations for customized C-Sky ISA/Microarchitecture.
- **Alibaba Taobao BU** — Hangzhou, China
  Senior Software Engineer — *June 2017 - Dec 2017*
  - **Static Program Analyzer**: Finished a static analyzer for C-family languages based on Clang 5, which is widely used for statically validating correctness and robustness of mobile Taobao (the most popular online shopping platform in China) APP with formal language.
- **Alibaba Group** — Hangzhou, China
  Software Engineer Intern — *June 2016 - Aug 2016*
  - **Google V8 VM**: Tuned the fore-end of Google V8 virtual machine to add some functions for supporting static type annotation of JavaScript language, we named it as static-javascript.
- **Huazhong University of Science and Technology** — Wuhan, China
  Teaching Assistant — *Sept 2014 - June 2015*
  - **TA for Compiler Course**:

Publication

- **PLDI'20**: Compiler-Directed Soft Error Resilience for Lightweight GPU Register File Protection, Hongjune Kim, **Jianping Zeng**, Qingrui Liu, Mohammad Abdel-Majeed, Jaejin Lee, Changhee Jung

Projects

- **XCC Research Compiler**: Open source C/C++/Fortran Compiler written in Java for research purpose, which accepts LLVM IR as input and produce ARM/X86 assembly code. The main motivation of this project is greatly leveraging the safe programming model provided by managed language, e.g., Java, to free compiler engineer so that compiler engineer can be concentrated on problem-specific coding work instead of being distracted by other unrelevant bugs.

Programming Skills

- **Languages**: C/C++, Java, Python, LLVM, ARM/X86 assembly **Technologies**: Compiler and Computer Architecture