## Keren Zhou

3180 18th St – San Francisco, CA – 94110, United States

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09/2017-05/2022 Department of Computer Science, Rice University Houston, United States

**Degree:** *Ph.D. in Computer Science* **Advisor:** John Mellor-Crummey

09/2014-07/2017 Institute of Computing Technology, Chinese Academy of Sciences Beijing, China

**Degree:** *M.S. in Computer Architecture* **Advisor:** Guangming Tan

09/2010-07/2014 School of Software, Yunnan University Kunming, China

**Degree:** B.E. in Network Engineering Advisor: Wei Zhou

RESEARCH EXPERIENCE

09/2017-05/2022 Rice University Houston, United States

Performance Profiling, Analysis, and Optimization of GPU-accelerated Applications

06/2015-07/2017 Institute of Computing Technology, Chinese Academy of Sciences Beijing, China

Deep Learning Acceleration Packages

**INDUSTRY EXPERIENCE** 

06/2022-current OpenAI LP San Francisco, United States

• Developing deep learning compilers and profilers;

o Reference: Head of Compute, Chris Berner, christopher.berner@openai.com.

05/2021-08/2021 Nvidia Inc. Dallas, United States

• Profiled input and output of deep learning operators to enhance performance reports and recover the computation graph;

o Reference: Software Manager, Timothy Gerdes, tgerdes@nvidia.com.

05/2020-08/2020 Google Inc. Houston, United States

o Performance Regression Analysis of Feedback-direct Optimization (FDO) Based Programs;

o Reference: Software Engineer, Wei Mi, wmi@google.com.

06/2018-08/2018 Facebook Inc. Menlo Park, United States

• Accelerated neural networks on ARM CPUs using auto-tuning methods;

o Reference: Research Scientist, Hao Lu, hlu@fb.com.

04/2017-07/2017 Nvidia Inc. Beijing, China

• Developed quantization tools on emerging GPUs to utilize INT8 capabilities;

• Reference: Technical Manager, Julien Lai, julienlai@nvidia.com.

10/2013-02/2014 Baidu Inc. Beijing, China

• Optimized Hadoop workflow and improved its performance by 30%;

o Reference: Senior Engineer, Jing Li, lijing16@baidu.com.

SELECTED PUBLICATIONS

[1] Keren, Zhou; Mark, Krentel; John, Mellor-Crummey: Tools for top-down performance analy-

sis of GPU-accelerated applications. In: 34th ACM International Conference on Supercomputing

(ICS), 2020

[2] Keren Zhou; Guangming Tan; Xiuxia Zhang; Chaowei Wang; Ninghui Sun: A Performance

Analysis Framework for Exploiting GPU Microarchitectural Capability. In 26th ACM Interna-

tional Conference on Supercomputing (ICS), 2017

**AWARDS & HONORS** 

2020 ACN	M–IEEE-CS George Michae	l Memorial HPC Fellowship
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2019 Ken Kennedy Institute ExxonMobil Fellowship

2017 Ken Kennedy Institute Andrew Ladd Fellowship

2017 Ken Kennedy Institute CS&E Fellowship