

HONGKUAN ZHOU

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Homepage: <https://tedzhohk.github.io/about>

EDUCATION

University of Michigan-Shanghai Jiao Tong University Joint institute (UM-SJTU)

09/2013 - 08/2017

B.S. in Electrical Computer Engineering

Overall GPA: 3.38/4.00 GPA in junior: 3.92/4.00

Rank(in ECE Major): 22/91

University of Southern California (USC)

08/2017 - 05/2019

M.S. in Computer Engineering

GPA: 4.00/4.00

University of Southern California (USC)

08/2019 - Present

Ph.D. in Computer Engineering Advisor: Viktor K. Prasanna

Current GPA: 4.00/4.00

WORK EXPERIENCE

Lisure Science (Suzhou) Co., Ltd.

04/2015 - 06/2015

Software Engineer Intern

Suzhou, China

- Performed image processing on pictures taken by lab microscopes to track the growth of bacteria to identify optimal conditions for cells living rate.

Lisure Science (Suzhou) Co., Ltd.

04/2016 - 06/2016

Software Engineer Intern

Suzhou, China

- Worked on a project aimed at analyzing the spectrum and implemented a system that smoothed the signal to find the peak. The system was developed in Matlab and C.

University of Michigan-Shanghai Jiao Tong University Joint institute

04/2015 - 02/2017

Teaching Assistant

Shanghai, China

- Worked as the teaching assistant for three programming courses under Professor Weikang Qian. <http://umji.sjtu.edu.cn/~wkqian/index.html>

University of Southern California

08/2019 - Present

Teaching Assistant

Los Angeles, US

- Work as the teaching assistant for the course *Parallel and Distributed Computation* under Professor Viktor K. Prasanna in 2019 Fall. <https://sites.usc.edu/prasanna/teaching/fall2019/ee451/>.

PROJECT AND RESEARCH

09/2015-10/2015

MIPS Single-Cycle and Pipelined CPU Design

Programmed both Single-Cycle and Pipelined CPU in Verilog and flashed into FPGA which supported most MIPS instructions. (Class Project)

09/2016-12/2016

A Neural Network Based Approach for CNC Machines Cutting Tools Image Recognition

	Built a cabinet that transmitted the cutting tools to CNC while checking the type of the tools through Convolutional Neural Network. (Undergraduate capstone project sponsored by Siemens)
12/2016-04/2017	Microsoft Image Cup, Perfect;Tune Developed a program in matlab and C that detected the pitch of instrument in real time and gave feedback to musicians according to the original sheet to enhance the trail-and-error process in practicing.
12/2017-Present	Research Assistant in the FPGA/Parallel Computing Lab · Developed novel minibatch sampling based training algorithms for Graph Convolutional Networks and optimized the algorithms on CPU and GPU. · Developed the knowledge base for a dynamic compiler to achieve near-ASIC performance on reconfigurable processors.

PUBLICATIONS

1. Zeng Hanqing*, **Zhou Hongkuan***, Sivastava Ajitesh, Kannan Rajgopal, Prasanna Viktor, GraphSAINT: Graph Sampling Based Inductive Learning Method, *International Conference on Learning Representations (ICLR)*, 2020 (*: Equal Contribution)
2. **Zhou Hongkuan**, Sivastava Ajitesh, Kannan Rajgopal, Prasanna Viktor, Design and Implementation of Knowledge Base for Runtime Management of Software Defined Hardware, *IEEE High Performance Extreme Computing Conference (HPEC)*, 2019 (**Best Student Paper Nominee**)
3. Zeng Hanqing*, **Zhou Hongkuan***, Sivastava Ajitesh, Kannan Rajgopal, Prasanna Viktor, Accurate, Efficient and Scalable Graph Embedding, *33rd International Parallel and Distributed Processing Symposium (IPDPS)*, 2019 (*: Equal Contribution)

HONORS AND SCHOLARSHIPS

05/2014	Meritorious Winner (Second Prize) , MCM-Mathematical Contest in Modeling 2014
10/2014	Third prize, Contemporary Undergraduate Mathematical Contest in Modeling 2014 (CUMCM 2014)
06/2015	Progress Award, SJTU-JI
04/2016, 09/2016	Dean's List

TECHNICAL STRENGTHS

Computer Languages	C/C++, Python, Matlab, Verilog, MySQL
Tools	Git, L ^A T _E X, Tensorflow, PyTorch, Bash
Language	Chinese, English, Japanese (N2 Level), German (B1 level)