

Chenggang Zhao

+86 18810597132
✉ zhaocg17@mails.tsinghua.edu.cn
🎧 LyricZhao

Education

Aug 2017 **Tsinghua University**, Beijing, China.
– Present B.Eng. in Computer Science and Technology.
GPA: 3.73/4.0, **Rank:** 49/222 (~22%).

Publication

Oct 2019 **Student Cluster Competition 2018, Team Tsinghua University: Reproducing Performance of Multi-Physics Simulations of the Tsunamigenic 2004 Sumatra Megathrust Earthquake on the Intel Skylake Architecture**, *Parallel Computing* 36 (2019)
Jiaao He, **Chenggang Zhao**, Jiping Yu, Xinjian Yu, Liyan Zheng, Chenyao Lou, Shizhi Tang, Wentao Han, Jidong Zhai.

Experience

Jan 2020 **Innovative Data-centric Efficient Architecture Lab (IDEAL)**, Institute for Interdisciplinary Information Sciences (IIIS), Tsinghua University
– Present Advisor: Professor [Mingyu Gao](#).
Working on distributed deep learning framework memory optimization.
Jan 2018 **Student Supercomputing Team**, Department of Computer Science and Technology, Tsinghua University
– May 2020 Advisor: Professor [Jidong Zhai](#).
Participated in multiple worldwide student cluster competitions as a core team member, winning many championship titles. Conducted parallel performance analysis and optimization on various software applications. Involved in cluster building and maintenance.

Selected Scholarships

Nov 2019 **Cai Xiong Scholarship for Science and Technology Innovation Excellence Award**, Tsinghua University.
Nov 2019 **SenseTime Scholarship**, SenseTime Technology.
Oct 2019 **Science and Technology Innovation Excellence Award**, Tsinghua University.
Oct 2018 **Science and Technology Innovation Excellence Award**, Tsinghua University.
Oct 2018 **Volunteer Excellence Award**, Tsinghua University.

Selected Awards

Nov 2019 **SC19 Student Cluster Competition Overall Winner**, ACM/IEEE, Denver, USA.
Reproduced and analyzed the performance of computing normal modes with a polynomial filtering eigensolver.

- May 2019 **ASC19 Student Cluster Competition Silver Prize**, ASC Committee, Dalian, China.
Implemented and optimized the ECCV paper *Super-Identity Convolutional Neural Network for Face Hallucination*.
- Nov 2018 **SC18 Student Cluster Competition Overall Winner**, ACM/IEEE, Dallas, USA.
Reproduced and analyzed performance of Multi-Physics Simulations of the tsunamigenic 2004 Sumatra megathrust earthquake. Our work is published on *Parallel Computing*.
- Oct 2018 **First Prize in North China Area of China Parallel Application Challenge on Domestic CPU**, CCF, Wuxi National Supercomputing Center, China.
Ported and optimized GROMACS (GRONingen Machine for Chemical Simulations) on Sunway TaihuLight.
- Sept 2018 **First Prize in Beijing Area of China Undergraduate Mathematical Contest in Modeling**, CSIAM, Beijing, China.
Analyzed and modeled the RGV (Rail Guided Vehicle) control system using reinforcement learning method.
- Dec 2017 **CCF Certified Software Professional Highest Score (Ranking 1/5947)**, CCF, Beijing, China.
- Jul 2016 **Silver Medal of National Olympiad in Informatics**, CCF, Sichuan, China.

Selected Course Projects

For more projects and related code, please refer to this [GitHub link](#).

- Jan 2020 **rCore Tutorial**, Operating Systems.
– Present A tutorial for writing an OS in Rust, it's going to be used for materials of labs in next year's course.
- Sept 2019 **ThinRouter**, Computer Organizations & Computer Networks.
– Dec 2019 A SystemVerilog implementation of MIPS32 CPU, bus and RIP router.
- Sept 2018 **FEATURES**, Software Engineering.
– Dec 2018 A massive-multiplayer online web game with distributed deployment and load balance.

Skills

Programming Languages: C/C++, Python, Java, JavaScript, \LaTeX , Rust, Verilog, MATLAB

Environments and Frameworks: CUDA, MPI, PyTorch, Vivado, Intel® Parallel Studio

Ballroom Dancing: Waltz, Quick Step, Fox Step, Tango, Rumba, Jive

Extracurricular Activities

- Oct 2019 **Volunteer for the 70th anniversary gala of the People's Republic of China**.
Volunteered for reception of domestic and foreign guests in the gala.
- Sept 2017 **Member of Ballroom Dancing Team**, Art Troupe of Tsinghua University.
– Present Participated in several university-level performances, winning titles in ballroom dancing competitions.
- Aug 2018 **Vice Minister in Student Union**, Department of Computer Science and Technology, Tsinghua University.
– Dec 2019 Participated in the organization of students' festivals (2018 and 2019). Director of the music video [InterNine](#).