

Zhanghao Wu

UNDERGRADUATE IN COMPUTER SCIENCE

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Education

Shanghai Jiao Tong University(SJTU)

B.S. IN COMPUTER SCIENCE

- A student of ACM Class, an elite CS program for top 5% talented students. (GPA: 92.07 / 100, **Rank: 2**)
- Interested in machine learning, including natural language processing, speech and efficient AI.

Shanghai, China

Sep. 2016 - Jun. 2020 (expected)

Research Experience

HanLab

RESEARCH ASSISTANT, SUPERVISED BY PROF. SONG HAN

- Focusing on privacy preserving and efficient machine learning.
- Currently working on efficient natural language processing, especially efficient language model.

Massachusetts Institute of Technology, USA

Jul. 2019 - Jan. 2020 (expected)

SpeechLab

UNDERGRADUATE RESEARCHER, ADVISED BY PROF. KAI YU

- Focused on Rich Audio Analysis (RAA), analysis and classification of non-text information within human speech.
- Designed a VAE data augmentation to improve the robustness of speaker verification. (**Oral paper, Interspeech 2019**)
- Implemented a Deep Canonical Correlation Analysis (DCCA) to combine i-vector and x-vector, which are two kinds of highly complementary embedding of speaker.

Shanghai Jiao Tong University, China

Jul. 2018 - PRESENT

Publications

Data Augmentation using Variational Autoencoder for Embedding based Speaker Verification

ZHANGHAO WU, SHUAI WANG, YANMIN QIAN, KAI YU

Interspeech 2019 (oral presentation)

Sep. 2019

Teaching Experience

Compiler (MS208), Teaching Assistant

C++ Programming (CS152), Teaching Assistant

Shanghai Jiao Tong University, Spring 2019

Shanghai Jiao Tong University, Spring 2018

Honors & Awards

First place, CVPR'19 Visual Wake Words challenge

CVPR'19, 2019

Third place, CVPR'19 Low Power Image Recognition Competition track 1

CVPR'19, 2019

Outstanding Winner, Mathematical Contest in Modeling (Top 0.5%, international)

COMAP, 2017

National Scholarship, (Top 1%)

Ministry of Education of P.R. China, 2018

Fan Hsu-Chi Chancellor's Scholarship, (Top 0.1%)

Shanghai Jiao Tong University, 2017

Merit Student

Shanghai Jiao Tong University, 2017

Zhiyuan Honorary Scholarship

Shanghai Jiao Tong University, 2016 - 2018

Selected Projects

VWW 📄 mit-han-lab/VWW

May. 2019

Won first place in the CVPR'19 Visual Wake Words challenge.

DeepCCA 📄 Michaelvll/DeepCCA

Dec. 2018

An implementation of Deep Canonical Correlation Analysis in pytorch

MW Compiler 📄 Michaelvll/MWCompiler

Jun. 2018

- Designed a compiler implemented in Java from scratch, translating Mx*, a Java-and-C-like language, program into x64-nasm code.
- Implemented optimizations for the compiler, faster than gcc O1 on test set, **98/100**.

RISCV CPU 📄 Michaelvll/RISCV_CPU

Jan. 2018

- Designed and implemented a FPGA-supported RISC-V CPU with 5-stage pipeline implemented in Verilog HDL. And becomes the only two implementation that support FPGA in class, **100/100**.

Chinese Land Battle Chess AI 📄 Michaelvll/Chinese-Land-Battle-Chess-AI

Nov. 2016

- Designed and implemented a rule-based AI for Chinese Land Battle Chess, a course project for C++ Programming 2016(CS152), SJTU.