

# 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 / 38.
- Research interests: Computer Architecture and Deep Learning.

Shanghai, China

Sep. 2016 - Jun. 2020 (expected)

## Research Experience

### SpeechLab

UNDERGRADUATE RESEARCHER, ADVISED BY PROF. KAI YU

- Focusing 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

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

TEACHING ASSISTANT

- Gave introduction of compiler for a toy language Mx\*.

Shanghai Jiao Tong University

Spring 2018

### C++ Programming(CS152)

TEACHING ASSISTANT

- Designed part of the homework and exam problems, to help students practice C++ programming.

Shanghai Jiao Tong University

Spring 2018

## Honors & Awards

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

COMAP, 2017

**National Scholarship**

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

### MW Compiler

Jun. 2018

🔗 [Michaelvll/MWCompiler](#)

- 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

Jan. 2018

🔗 [Michaelvll/RISCV\\_CPU](#)

- 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**.

### Train Ticket

Jun. 2017

🔗 [TimerChen/TrainTickets](#)

- Implemented the frontend UI for the Train Ticket project, a group project for Data Structure 2017 (CS147), SJTU.

### Chinese Land Battle Chess AI

Nov. 2016

🔗 [Michaelvll/Chinese-Land-Battle-Chess-AI](#)

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