Zhanghao **Wu**

UNDERGRADUATE IN COMPUTER SCIENCE

✉ wz.wzh@sjtu.edu.cn | 🏠 zhanghaowu.me | 🐙 Michaelvll | Ⓢ zhanghao.wu@outlook.com

Education

Shanghai Jiao Tong University(SJTU)   *Shanghai, China*
B.S. IN COMPUTER SCIENCE   *Sep. 2016 - Jun. 2020 (expected)*
- 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.

Research Experience

SpeechLab   *Shanghai Jiao Tong University*
UNDERGRADUATE RESEARCHER, ADVISED BY PROF. KAI YU   *Jul. 2018 - PRESENT*
- 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.

Publications

Data Augmentation using Variational Autoencoder for Embedding based Speaker Verification
ZHANGHAO WU, SHUAI WANG, YANMIN QIAN, KAI YU   *Sep. 2019*
Interspeech 2019 (oral presentation)

Teaching Experience

Compiler   *Shanghai Jiao Tong University*
TEACHING ASSISTANT   *Spring 2018*
- Gave introduction of compiler for a toy language Mx*.

C++ Programming(CS152)   *Shanghai Jiao Tong University*
TEACHING ASSISTANT   *Spring 2018*
- Designed part of the homework and exam problems, to help students practice C++ programming.

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.