Zhenxin Xiao

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Github link: https://github.com/AlanShaw-GitHub
Zhejiang University (Yuquan campus), Hangzhou, China, 310058

EDUCATION

Zhejiang University (Chu Kochen Honor College) Sep 2016-Present

Double Major: Interdisciplinary Honors Program (Computer Science and Control Science)

The program was established by Chu Kochen Honor College (recruiting top 7% students) in 2016 to cultivate interdisciplinary talents Academic Performance

- Year 1: GPA: 4.00/5.00 Rank: 14/100
- Year 2: GPA: 4.40/5.00 Rank: 3/85
- Year 3: GPA: 4.67/5.00 Rank: 1/85

Awards && Scholarships:

- First-Class Scholarship for Outstanding Merits (3%), First-Class Scholarship for Outstanding Students (3%)
- First Price (Top 8 out of 150+) in the 16th Mathematical Contest in Modeling of ZJU
- Silver medal winner (win 40000 RMB prize) in the China Datathon in Shanghai on November 17, 2018(Big Data competition)
- 2019 Valeon Scholarship (S. I. Komarova Scholarship for academic excellence)
- "Challenge Cup" in Zhejiang University, Modeling peoples' character with Weibo data retrieved by web crawler
- Second Price in the 15th Mathematical Contest in Modeling of ZJU

INTERESTS

Natural Language Processing, Computer Vision, Robustness and Adversarial Attack

I am currently working on the generation of adversarial examples in image/language with professor Cho-Jui Hsieh. I also have experience with non-autoregressive transformer and BERT, previously, I mainly conducting experiments on visual-language fusion like VQA and Video Temporal Grounding.

PUBLICATIONS

Zhou Zhao, Zhu Zhang, Shuwen Xiao, **Zhenxin Xiao**, Jun Yu, Deng Cai, and Fei Wu. "Long-Form Video Question Answering via Adaptive Hierarchical Attention Reinforced Networks." *In proceedings of the IEEE Transactions on Image Processing (IEEE TIP), 2019.*

Zhu Zhang, Zhijie Lin, Zhou Zhao, **Zhenxin Xiao**. "Cross-Modal Interaction Networks for Query-Based Moment Retrieval in Videos." *In proceedings of 42nd International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR), 2019.*

EMPLOYMENTS

UCLA CSST Program Los Angeles, America

Research Intern, Advised by Kai-wei, Chang and Cho-Jui, Hsieh Summer 2019

Select students from top-tier universities in China and Japan to conduct research in Cross-disciplinary areas. (90 out of 1000+ candidates). I primary work on robustness in CV/NLP.
Program Website: https://www.csst.ucla.edu/summer-program-csst

Yiwise.ai Hangzhou, China

Research Intern, Advised by Zhou, Zhao Summer 2018

Conducted research on video question answering and machine reading comprehension problems.

PROGRAMMING LANGUAGES

Python, C/C++, Matlab, Java, Verilog HDL, JavaScript, Bash, Swift, C#

DEVELOPMENT SKILLS

Tensorflow, Pytorch, Qt (C++/Python), OpenCV, FPGA

PROJECTS

(except for special notation, the following works are all done alone)

Operating system Design (MIPS SDK on C)

Source Code: https://github.com/AlanShaw-GitHub/OS_Exp/tree/sched

Dec. 2018

I design a MIPS Operating system on FPGA-based hardware (supporting MIPS instructions), it is written in MIPS assembly and C. My major contribution is to design the complete fair schedule algorithm (CFS) for process scheduling, system calls and loading user programs.

MIPS assembler/disassembler (Python)

Source Code: https://github.com/AlanShaw-GitHub/MiniMIPS

April. 2018

The MIPS assembler/disassembler is designed to convert the MIPS constructions to binary codes or revert this process, it uses QT(Python) as GUI design and supports nearly 200 MIPS instructions. It is adopted by the Computer Organization course in Zhejiang University.

ROS Navigation Global Planner (rewrite source code on ROS)

Source Code: https://github.com/AlanShaw-GitHub/ROS-Navigation-GlobalPlanner

March. 2018

I extend the source code of ROS Navigation Global Planner to implement RRT and optimized A* algorithms, and also add some visualizations to the simulation environment. The code is adopted by the Robotics course in Control Science College as example course project.

Ball-Maze Game (based on Xilinx Nexys 4 and Verilog HDL)

Source Code: https://github.com/AlanShaw-GitHub/FPGA-verilog-GAME

Dec. 2017

Being a member in Computer Hardware Group of Computer Science College of ZJU, I design a Ball-Maze game using Verilog HDL and Vivado 2017.4 toolkit, the hardware is Xilinx Nexys 4 board, it uses VGA output to visualize and on-board three-axis accelerometer to control the ball.

MiniSQL Database (Python)

Source Code: https://github.com/AlanShaw-GitHub/MiniSQL/tree/master/miniSQL

July. 2018

The MiniSQL database is a command-line database written by Python, it uses B+ tree and many other features as background engine to store and load the data. It is designed to simply simulate the MySQL using minimizing codes (only less than 2000 lines).

Book Management System (Windows UWP version)

Source Code: https://github.com/AlanShaw-GitHub/MiniSQL/tree/master/bookmanagement

June. 2018

The Book Management System is designed for the course project of Database Systems. It uses C#/UWP and using some new features like navigation bar and acrylic design first introduced in Windows Fall Creator Updates 2017.