SIYUAN FENG

UNDERGRADUATE STUDENT, COMPUTER SCIENCE

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Education

B.Sc. in Computer Science - Shanghai Jiao Tong University   Sept 2016 - Present

· Member of ACM Honors Class , which is an elite CS program for top 5% talented students.

Research Experience

APEX Data & Knowledge Management Lab - Shanghai Jiao Tong University   July 2018 - Present

· Undergraduate Researcher, advised by Prof. Weinan Zhang and Prof. Yong Yu .
· Research interests: Deep Reinforcement Learning and Natural Language Generation (NLG).

SAMPL - University of Washington   July 2019 - Present

· Research Intern, advised by Prof. Luis Ceze .
· Now I am working on TVM , an exciting deep learning compiler stack

Publications

CityFlow: A Multi-Agent Reinforcement Learning Environment for Large Scale City Traffic Scenario - WWW 2019 Demo   2019

Huichu Zhang, **Siyuan Feng**, Chang Liu, Yaoyao Ding, Yichen Zhu, Zihan Zhou, Weinan Zhang, Yong Yu, Haiming Jin, Zhenhui Li

Improved Training of Sequence Generative Models - ICML 2019   2019

Sidi Lu, Lantao Yu, Siyuan Feng, Yaoming Zhu, Weinan Zhang, Yong Yu

Teaching

MS106: Principle and Practice of Computer Algorithms - SJTU   Summer 2018

· https://acm.sjtu.edu.cn/wiki/PPCA_2018
· *Student Instructor*
· Led the TA team (was one of the three lead TAs).
· Maintained the Online Judge System for assignments and exams. And built a new judge core for it.
· Instructed a group of students to implement a simplified Deep Learning System with some simple APIs which is same as those in TensorFlow.

CS147: Data Structures - SJTU   Spring 2018

· https://acm.sjtu.edu.cn/wiki/Data_Structures_2018
· *Teaching Assistant*
· Led the TA team (was one of the three lead TAs).
· Prepared the course project (a railway ticket management system) with other TAs.
· Prepared the course project (STLite in C++).

CS151: C++ Programming (A) - SJTU   Autumn 2017

· https://https://acm.sjtu.edu.cn/wiki/Programming_2017
· *Teaching Assistant*
· Gave a lecture on C++ multithreading programming.
· Prepared the course project (Quoridor Game) with other TAs.
· Prepared the course project (OOP programming in C++) with other TAs.

Honors and Awards

Zhiyuan Leadership Scholarship - Shanghai Jiao Tong University   2017

Zhiyuan Honorary Scholarship - Shanghai Jiao Tong University   2016 & 2017

The 9th Asia and Pacific Informatics Olympiad (APIO) - Bronze Medal   May 2015

Selected Projects

M-Compiler - A Compiler for Mx* Language   Spring 2018

· ⚙ https://github.com/Hzfengsy/M-Compiler

· It is a compiler implemented in Java from scratch, and the source language is Mx*, which is a C-and-Java-like language.

· Implemented many optimizations for the compiler, which got it faster than gcc O1.

· Final score: 95 / 100.

RISC-V - A RISC-V CPU on FPGA   Fall 2017

· ⚙ https://github.com/Hzfengsy/RISC-V

· Designed and implemented a FPGA-supported RISC-V CPU with 5-stage pipeline implemented in Verilog HDL.

TitanFlow - A Simple Deep Learning System   Summer 2017

· ⚙ https://github.com/Hzfengsy/titanflow

· Designed and implemented a simple Deep Learning System with some same APIs as TensorFlow.

AI of Chinese Battle Chess - A Simple AI   Fall 2016

· ⚙ https://github.com/Hzfengsy/AI-of-Chinese-Battle-Chess

· Course project of Programming 2016 (CS122), ACM Class, SJTU.

· Project Rank: 3 / 48.