Yi Lyu

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EDUCATION

Shanghai Jiao Tong University, Shanghai,China

- Major in Information Engineering (GPA:87.5/100, last year: 91.68/100) Sep 2017 – Jun 2021
- Major in Zhiyuan Honors Track (170 /∼3600) Sep 2017 – Jun 2021

PROFESSIONAL AFFILIATIONS

Microsoft: Summer Intern in Azure Storage 2020.7 –2020.10

- **Azurite**, open source project with more than **600 stars** link
- I was mainly responsible for building the table service for the Azure Storage local simulator — Azurite. It is a open source project of Microsoft organization and receives by now more than 600 stars on GitHub.

Google: Software Product Sprint summer project 2020.7–2020.8

- We built a cross platform application based on Flutter and django framework called **Graminstra**, implementing major functions of instagram under supervision of Googler. link

Google: Summer Intern in Advertisement Team 2019.7 –2019.9

- I built a highly distributed and parallel pipeline to process high volume of data to coordinate the data inconsistency. I adopted java as main language and used Flumejava, F1 database and Streamz to complete this job.
- It can process **1.4 billion** google account data within 20 minutes.

RESEARCH EXPERIENCE

Research Assistant, supervised by Professor **Haiming Jin** Feb 2019- present

- I was working on using reinforcement learning to configure database's knobs to get better efficiency. Due to the huge search space of the knobs, we first pick out most important knobs after analyzing database internal metrics.Then We use reinforcement learning to find suitable knob values.Finally we compare new workload's feature vector with pre-trained workload's feature vector to recommend knob setting.

PROJECTS

JOS, An OS kernel from scratch link

- I build an OS kernel based on scratch codes from MIT 6.828 courses, from bootloading to establishing of user process, which includes more than 10,000 lines of codes.
- I got the highest score in my class of course Operating System Course Design with **99**.

Go Interpreter link

- I built an interpreter in go, which is capable of calculations, variable bindings, functions and the application of those functions, conditionals, return statements

KeyValue Store based on LSM tree link

- I built a KeyValue store system based on LSM tree, according to the design of LevelDB. I added write-ahead-log for data durability. To further improve the efficiency, I used bloomfilter to speed up the process of looking up keyvalue in each SSTable.

TEACHING EXPERIENCE

Teaching Assistant, Shanghai Jiaotong University Sep 2019-May 2020

- Assist Prof **Qianni Deng**
- SJTU CS359 **Computer Organization and Architecture**

AWARDS & SCHOLARSHIPS

- Zhiyuan College Honors Scholarship (CN ¥5000, Top5%) 2017
- Zhiyuan College Excellent Scholarship 2018
- **Meritorious Winner** Mathematical Contest in Modeling, top 7% out of 25,000 teams 2019

CORE COURSES

- C++ Programming (A), Data Structure (A), Algorithm Design (A+)
- Operating System Design (A+), Databases (A), Computer Network (A)
- Data Visualization System (A+), AI Interaction Technology (A+)
- Wireless Network (A+), Big Data Mining (A), Machine Learning (A)

SKILLS

- **Programming Language**: C/C++, Java,Javascript, Typescript, Golang,Python, HTML, MySql
- **Software and framework**: Flutter, Django, Tensorflow,Keras, MATLAB, LaTex, CSS