Yiwei Yang

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Education

ShanghaiTech University, Undergraduate 09/2018 – Present

- Major: Computer Science, Berkeley based courses, finished Compiler, OS, RL, Parallel Computing.

Work Experience

Jump Trading, Shanghai, China 07/2020 – 09/2020

(Linux Team) Production Engineer Intern

- High Frequency Trade Order Book simulation applying Linear.Regression Method.
- Applied salt and jinja to automate scheduling of jobs and assigning affinity of cpu cores in Linux DevOps.
- Applied gobidng of gobpf to try IOVisor stuff.

GeekPie_HPC association, Shanghai, China 01/2020 – Present

(Team Leader) Association Administration

- Optimized a parallel quantum computer simulater QuEST by reducing the cache-miss rate and introducing AVX2/AVX512 vectorization for CPU part and adopting NCCL comunication infro for GPU part.
- Compiled and distributed climate simulator CESM on Azure with automated scheduling.

Research Experience

System and Software Security Lab, ShanghaiTech University 07/2019 – 07/2020

(Intern) Undergraduate Research

- Researching Adversarial Sample Detection for Deep Neural Network using foolbox and IBM-ART to improve accuracy of object recognition to prevent impostors from hacking into systems.
- Researching MOVE metabolism in Libra currency source code to improve security against cyberattacks.

Portfolios

COOL compiler https://github.com/victoryang00/CS131-COOL-Compiler

A Classroomm Objecct-Oriented Language from souce code to MIPS Assembly

- Implemented lexer, parser and code-generator.

Pintos http://victoryang00.xyz:5012/victoryang/pintos-team-20

A Stanford based Tiny x86 single thread multi process Operating System

- Implemented Thread, User Program (Argument Passing) Virtual Memory and File System.

Cuckoo Hashing https://github.com/victoryang00/CuckooHashing

A Novel Hash method using GPU

- Implement full 2 cuckoo Hash table.

Skills

- **Programming Languages**: not limited to any specific language, and experienced in Python/Golang/C++, comfortable with Rust/Java/Scala/TypeScript (in random order).
- **System**: familiar with operating system concepts and design, have experience in optimizing performance on kernel level using tools like `gdb` and `strace`.
- **Machine Learning**: familiar with general knowledge of machine & reinforce learning.
- **Developing Tools**: experienced in Linux-based programming, have experience with team tools like Confluence, Jira, Git, etc, DevOps tools like grafana, jenkins, ansible, etc.

Miscellaneous

- Interests: High Performance Computing, databases and formal method.
- *Ranked 9*, Super Cluster Competition, 2020.
- *Best award*, Bitrun, Hang Zhou, 2019.
- *Second Award*, Shangahi CTF invitation competition, 2019.