

## **Yuheng WU**

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### **Education**

#### **Shanghai Tech University, Shanghai**

**Sep.2020-June 2024 (Expected)**

Bachelor of Engineering in Computer Science

- GPA 3.42/4.00
- Latest Year's GPA 3.88/4.00 (Junior Year)
- Assistant Experience: Leading Teaching Assistant of Operating Systems Course
- Awards:
  - ◇ First Prize of 10<sup>th</sup> ASC (Asia Supercomputer Community) Student Supercomputer Challenge
  - ◇ Successful Participant for Mathematical Contest in Modeling by COMAP (Consortium for Maths and its Applications) 2023

### **Project/Research Experiences**

#### **Researcher | Management System for Multi-node Cloud Computing (Chinese Academy of Science) June-Aug. 2023**

- Conducted an App + MySQL (multi-app deployment) experiment on Kubernetes.
- Designed and implemented a scheduler in Go language for a new Cloud computing platform (CloudFlow). Function of the scheduler includes manage worker; manage applications; manage computing tasks; channel workers and tasks; clean up.

#### **Reserve Participator | ISC Student Cluster Competition (SCC) in Quantum ESPRESSO Mar.-May 2023**

- Used two provided cluster (respectively Intel Xeon Platinum and AMD EPYC CPUs with Nvidia GPUs) to run profile of two inputs over 4 nodes and full PPN. Tools were ARM Forge, Intel VTune and Intel Trace Analyzer and Collector.
- Ran scalability tests on 4 nodes. Optimized 4-node-run result by tuning MPI version, adding bindings according to system architecture in core, cache, socket, etc. and combining MPI with OpenMP.
- The team finally achieved top 3 in ISC 2023 SCC.

#### **Participator | Predicting Wordle Result (The Mathematical Contest in Modeling) Jan.-Feb. 2023**

- Built MLP (Multilayer Perceptron) Model by using Sklearn in Python to predict the number of reported results; coded for Grey Prediction and Polynomial Prediction for comparative uses.
- Set up a GBDT and a MLP model to produce the prediction of the distribution of reported results.
- Used K-means and KNN to classify words by distribution of tries to get word difficulty classification.

### **Intern Experience**

#### **Software Assistant | vTradEx Information Technology (Shanghai) Co., Ltd Jun. -Aug. 2023**

- Engaged in a IoT High-Integrated Smart Storage Application Project, responsible for function and performance testing.
- Trained to master product development process such as using designated TensorFlow framework to train projects.

#### **Software Assistant | Shanghai Aerospace Yigen Intelligent Technology Co., Ltd July-Aug.2022**

- Engaged in creating a production operation management platform.
- Specified and detailed the requirement of system performance, including resource management.
- Deployed test hardware, system and system environment and conducted product test.

### **Miscellaneous Experience**

#### **Chief Member | Geekpie Club Sep. 2022-Now**

- Assign tasks, integrate exam contents and find out answers via web searching; encourage teammates.
- Responsible for DeepMD part of competition on site-achieving the best performance under 3000 watts power.
- Maintain the server of the club including fixing hardware devices, operating system installing and reinstalling.

#### **Vice President | Chess Club Sep. 2020-June 2021**

- Teach the basic chess skills for the club members and organize competitions.

### **Skills and Interests**

- Computer Languages: C, C++, Python, Matlab, Go, SQL, RISC-V
- Skills: Operating Systems, Database, Software Developing, HPC Optimization.
- Application: Visual Studio Code, Vim, Matlab, Latex, Linux Shell, Logisim, Spack, Intel Trace Analyzer and Collector, Intel VTune, Slurm, Kubernetes, Docker, QEMU, Bochs.
- Interests: Badminton, Chess