# ZHUOFU CHEN

✉ aetiurf@gmail.com · ☎ (+86) 191-171-62013 · ⌂ aetiurf ·

## EDUCATION

**Tongji University**                                                                                   Shanghai, China

*B.S. in Computer Science and Technology (Elite Class)*                              Sept. 2021 - Present

- GPA: 4.93/5.00   Ranking: 1/20

## RESEARCH INTERESTS

I have broad interests in building system infrastructures to systematically bring better *performance*, *resilience*, and *usability* to *real-world applications*. Specifically, I often contemplate how to *redesign next-generation datacenter/cloud operating systems* to bridge the gap between emerging hardware and software, and to serve numerous applications such as AI inference/training and cloud computing.

## EXPERIENCE

**Institute of Parallel and Distributed Systems, Shanghai Jiao Tong University**

*Research Intern* advised by Xingda Wei and Haibo Chen                           Jul. 2023 - Apr. 2024

- Designed a performance-optimal GPU remoting system for AI applications.
- Derived a formulating cost model to draw the network requirement of arbitrary GPU remoting applications.
- Studied the lower bound of datacenter network for supporting transparent and efficient GPU serving.
- Investigated the principle of existing GPU virtualization and checkpoint/restore solutions.
- One paper is pending review.

**Key Laboratory of Embedded System and Service Computing, Tongji University**

*Research Intern* advised by Zhijun Ding                                                Nov. 2022 - Oct. 2023

- Implemented a WebAssembly-based runtime with an OCI shim to bridge orchestration tools and runtime.
- Invented a dynamic-import mechanism that provides an easy-to-use, isolated but sharable resource allocation mechanism for WebAssembly modules.
- One paper is pending review.

## PROJECTS

**High-performance Wasm-based serverless workflow system**

- Accelerates the performance of functions by pure thread-level shared-memory communication and WebAssembly's inherent near-native execution efficiency.
- Schedules function workflow based on affinity at the upper layer.

**Pintos, a x86-architecture Operating System (UCB CS162)**

- Implemented basic interrupts, multiple thread schedulers.
- Implemented user process handling, multiple system calls and a fully functional file system.

## SELECTED AWARDS

| | |
|---|---|
| National 1st Prize (0.55%) in Contemporary Undergraduate Mathematical Contest in Modeling | 2023 |
| Regional 1st Prize in Contemporary Undergraduate Mathematical Contest in Modeling | 2023 |
| China National Scholarship (top 0.2%) | 2022 |
| Regional 2nd Prize in Contemporary Undergraduate Mathematical Contest in Modeling | 2022 |
| Bronze Medal of National Olympiad in Informatics (NOI) | 2020 |
| 1st Prize of National Olympiad in Informatics in Provinces | 2019 |