

Jiakun Fan

 github.com/chosen-ox
 chosen-ox.github.io
 [jiakun-fan-6a748828a](https://www.linkedin.com/in/jiakun-fan-6a748828a)
 jiakunfan@link.cuhk.edu.cn

EDUCATION

The Chinese University of Hong Kong Shenzhen

Bachelor of Electronics and Communication Engineering

University of Rochester

Exchange Student

September 2020 – June 2024

Rank: 45/137, Current GPA: 3.3/4.0

January 2023 – May 2023

Dean's List, GPA: 3.85/4.0

RELEVANT COURSEWORK

CUHKSZ Courses: Advanced Computer Architecture (in progress), Operating system, Computer Architecture, Algorithm Design and Analysis, Computer network, Software Engineering, Database System, Data Structure, Discrete Mathematics

UR Courses: Software Analysis & Improv, Computer Security Foundation, Parallel & Distributed System

SKILLS

Languages: C, C++, CUDA, Java, Rust, Nvim, Python, L^AT_EX, Markdown

Tools: Git/GitHub, Unix Shell, Hadoop3, Docker, Valgrind

PUBLICATION

Yuzhou Tong, Jiakun Fan, Xuhong Cai and Yi Chen (2023). "Rate Adaptation with Correlated Multi-Armed Bandits in 802.11 Systems" IEEE ICC 2023.

PROJECTS

Rate Adaptation with Correlated Multi-Armed Bandits in 802.11 Systems | *C, Python* Fall 2023

- Use Correlated Multi-Armed Bandits to Improve Speed in Identifying the Appropriate Rate
- Rewrite MAC80211 part of linux kernel
- Simulation and Test-bed Experiments are both Carried out to Evaluate Performance.

MVCC Software Transactional Memory | *Rust* Spring 2023

- Implemented software transactional memory in Rust
- Put off Side-effect Operations
- Use Multi-Version Concurrency Control (MVCC) to speedup

File System Management via GPU's Memory | *CUDA* Fall 2022

- Built a Filesystem on GPU Memory
- Support 1024kb File
- Support Compact Blocks.

5-Stage-Pipelined-CPU | *Verilog* Fall 2021

- Implemented a Five-Stage Pipelined CPU via Verilog
- Use a Forwarding Module to Avoid hazard like RBW (read before write)
- Add "shift" Signal to Support Shift Amount

EXPERIENCE

Computer Community | *Member* 2021– Present

A community frequently holds CS Seminar

Mathematical Contest In Modeling | *Contestants* Winter 2020

Won S award

Super Professor | *Developer* Spring 2021

A Software to Rate Professors