Anthea(Anxue) Chen

anxuec2@illinois.edu | anxue.17@intl.zju.edu.cn | github.com/Abracax | anxue.xyz

Education (Dual Degree)

University of Illinois at Urbana-Champaign GPA: 3.76/4.0
Bachelor of Science in Computer Engineering *Sept. 2017 – June 2021*

Zhejiang University GPA: 3.84/4.0
Bachelor of Engineering in Electronics and Computer Engineering *Sept. 2017 – June 2021*

- Third Scholarship for academic excellence by Zhejiang University 2017-2018
- Third-class Academic Excellence Scholarship by ZJUI. 2017-2018

Internship Experience

ByteDance June 2020 – November 2020
Software Development Engineer Intern *Go, Python*

- Participated in the design and development of a new monetization platform that calculates commission split for all high-quality user generated content.
- Developed data processing tools used in content marketing, offline part using Hive, online part using Redis, graph databases and ClickHouse.
- Responsible for updating changes to the Back-end of the platform website using Flask and Gin; Responsible for the maintenance and profiling of the data tools deployed on Bytedance Service mesh.
- Learned knowledge from an industrial perspective especially in service mesh architecture, thrift RPC framework implementation and distributed database systems.

QSCTech of Zhejiang University Sept 2018 – Present
Individual Contributor *Kubernetes, Go, Vue.Js*

- Participated in the whole-stack web development and maintenance of tool apps and websites all Zhejiang University students use to check for grades, schedules .etc
- Active in building Kubernetes infrastructure; configured and maintained web services in Istio service mesh.

Projects

MiniKernel | *ASM, C* Sept 2019 – Dec 2019

- Implemented a simplified version of Linux kernel from scratch, starts from bootloader, with support of paging, interrupts, basic system calls, read-only filesystem and devices.
- Supports devices including i8259, keyboard, soundcard, and VGA display; Supports a basic terminal, a running shell and several programs.
- Supports basic process scheduling, provides pseudo parallelization between tasks.

TiFS | *Rust* Dec 2020 – Present

- A userspace POSIX file system based on distributed transactional key-value store TiKV, over 200 stars on GitHub
- Supports strict consistency and partition tolerance, passes pjdfstest and fio
- Implements all FUSE API; Supports real-world usage e.g. Npm, Cargo, Sqlite, GCC and TIDB

Masteraft | *C++, JavaScript* Jan 2019 – March 2019

- A distributed logging system; Supports consistent and partition tolerant log replication across distributed servers
- Used I/O multiplexing methods for log replication and leader election; Parallelized most blocking tasks
- Supports a front-end (Vue.Js) to monitor states of each server; Implemented network protocols based on Boost

SRTP | *C++, MATLAB* March 2019 – Sept 2019

- A simulation study based on the modelling of quantum transport on 2D-material transistors, Excelled at the SRTP (Student Research Training Program) oral defense
- Performed as team leader to model monolayer MoS2 transistors with the Quantum Transport Equation
- Obtained the numerical range by simulation with Poisson's Equation in COMSOL Multiphysics; Gained accurate calculation using Newton-Raphson method

Language Exams

TOEFL iBT 106

Relevant Courses

Calculus(I,II,III), Discrete Mathematics, Computer Systems and Programming, Data Structures, Computer Systems Engineering, Database Systems, Natural Language Processing, Introduction to Algorithms and Models of Computation, Applied Parallel Programming, Computer Organization and Design, Differential Equations, Formal Software Devel Methods, Machine Learning, Data Mining, Data Science and Engineering

Other

Languages: English, Mandarin
Programming Languages: C/C++, Go, Java, Python, Rust, JavaScript, SQL, System Verilog
Platforms: MacOS, *nix