Billy (Yichi) Zhang

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EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY

M.S. in Electrical Engineering and Computer Sciences
Aug 2021 - May 2022 | Berkeley, CA
GPA: 3.60

UNIVERSITY OF CALIFORNIA, BERKELEY

B.A. in Computer Science
Aug 2017 - May 2021 | Berkeley, CA
GPA: 3.65
Major GPA: 3.80

PERSONAL INFO

Personal Page	zyc.moe
GitHub	MCer4294967296
LinkedIn	zyc.moe/linkedin

COURSEWORK

GRADUATE

Advanced Topics in Computer Systems
Applications of Parallel Computers
Computer Networks
Privacy Preserving Systems
Advanced Computer Graphics Algorithms

UNDERGRADUATE

CS 162: Operating System
CS 168: The Internet
CS 161: Computer Security
CS 188: Artificial Intelligence
CS 186: Databases
CS 184: Computer Graphics

SKILLS

- C/C++
- Java
- Linux
- Python
- Javascript
- Shell
- GoLang
- RISC-V

EXPERIENCE

GOOGLE LLC | Software Engineer

Aug 2022 - Now | Mountain View, CA

- Working in Play Commerce team under Platform and Ecosystem of Play Store.
- Helped to finish a refactor of the screen in Play Store where people can view, apply for, and select available promotional offers.

BERKELEY NETSYS LAB | Software Researcher

Dec 2020 - May 2022 | Berkeley, CA | Professor Scott Shenker

- Took part in the RingWorld project, a datacenter consensus protocol using a ring topology. Read author's report at zyc.moe/ringworld if utter details are desired.
- Designed a scripted multi-machine simulation test bench in C/C++ for the protocol from scratch. Self-taught low-level linux network socket programming.
- Experimented how well the protocol could scale theoretically in deployments with double the recommended ideal size in reality.
- Explored the impact of using various data transports over two network setups.
- Report is at zyc.moe/master_thesis

CERTIK LLC | Software Engineering Intern

May 2021 - Dec 2021 | Berkeley, CA

- Worked in the tooling team, provided functionality for the internal main platform to facilitate other teams' auditing process.
- Integrated several external programs into the platform.
- Worked on providing language support for Solidity on the platform.

KELDA INC. | Software Engineering Intern

Aug 2019 - Dec 2019 | Berkeley, CA

- Worked on a Golang project that aimed to automate the process of code deployment onto a Kubernetes cluster for developers.
- Designed a system that combines log streams from multiple micro-services. Experimented different polling/interrupt strategies.

PROJECTS

NARROW Jan 2021 - May 2021

- Computer Networks' class project of 2 students.
- Designed a protocol on the basis of Extensible Internet that defends DDoS attacks in a distributed fashion.
- Investigated how much resource does the Narrow protocol cost so as to peek how performant do edge servers need to be.
- Simulated a toy environment using Open vSwitch and a control program that modifies the OpenFlow rules in effect.
- Final report is at zyc.moe/cs268_report.pdf

TLDR Sept 2020 - Dec 2020 | Python

- Stands for *Time travel with Large-scale, Distributed event-souRced systems*.
- CS 262 class project of 3 students.
- Investigated the Ray framework for building the desired system.
- Tested multiple potential paradigms - multiple vs single actor system.
- Implemented snapshot and inherently time-travelling functionalities.
- Final report is at zyc.moe/cs262a_report.pdf