CATHERINE ZHENG

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EDUCATION

University of Michigan — Ann Arbor, MI
B.S. Computer Science — *Fall 2018 - Winter 2022*

– EECS 491: Intro to Distributed Systems (Golang)

– EECS 482: Intro to Operating Systems (C++)

– EECS 281: Data Structures and Algorithms (C++)

London School of Economics — London, U.K.
Summer Study Abroad, 6-8 credit hours — *Summer 2019*

EXPERIENCE

Facebook — Menlo Park, CA (remote)
Software Engineer Intern — June 2021 — August 2021

– Drove the design and development of existing and oncoming features aimed at further improving a user's experience on the Facebook desktop website. Implemented features with `Relay` and `PHP`.

– Became proficient at catching and flagging bugs, writing integration tests critical for privacy, and writing end-to-end tests to consolidate newly developed features.

Facebook — Menlo Park, CA (remote)
Software Engineer Intern — May 2020 — August 2020

– Went through the entire process of design, development, testing, and deployment of user facing features using `React` as well as an infrastructure to dynamically render them on the Facebook desktop website.

– Creeated the framework using `Relay` (GraphQL client for React) and `PHP`.

MIT IoT Bootcamp — Bloomfield Hills, MI
Course Mentor — May 2018 — June 2018

– Co-mentored eight groups of high school freshmen in solving real-world issues, guiding them to innovate solutions using IoT technology while learning more about different facets of computer science

– Managed the hands-on process of building IoT hardware, writing software, and the final student hackathon

PROJECTS

Paxos-based Key/Value Service for EECS 491

– Created a Paxos-based key-value service that supports concurrent Put, Get, and Append requests from the client and preserves linearizability through a Paxos-based RSM.

– Implemented the key-value store, Paxos and Paxos-based RSM in `Golang` and developed bash scripts to optimize testing.

Linux Thread Library for EECS 482

– Created a multiprocessing library for Unix systems that supports threads, mutexes, and condition variables. Implemented the library and tests in `C++`.

Music Quiz Game *JPMorgan Prize Winner at EECS 183 Project Showcase*

– Lead a team of four to develop a music quiz web app on Heroku using `Flask` framework and `Python`

– Integrated web-scraping using `Beautiful Soup`™ HTML parser and leaderboard `Google Firebase`™

DNS Spoofing

– Implemented a programs to detect port scanning and ARP spoofing on a network and conduct man-in-the-middle DNS attacks. Required to self-teach `Golang`

ADDITIONAL

– Languages: `C++, Python, React, PHP`

– Technologies: Visual Studio Code, Git, Mercurial

– Freelance graphic designer and avid artist — check out my portfolio at catzheng.com!