CATHERINE ZHENG

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EDUCATION

UNIVERSITY OF MICHIGAN   Ann Arbor, MI
B.S. Computer Science   *Fall 2018 - Winter 2022*

- GPA: 3.49/4.00
- Relevant Coursework: Intro to Operating Systems – Data Structures and Algorithms (C/C++) – Intro to Computer Organization (C / ARM / LC-2K) – Intro to Computer Security (Python) – Linear Algebra – Multivariable Calculus

LONDON SCHOOL OF ECONOMICS   London, U.K.
Summer Study Abroad, 6-8 credit hours   *Summer 2019*

EXPERIENCE

Facebook   Menlo Park, CA (remote)
Software Engineering Intern   June 2020 — August 2020

- Implemented UI and backend of core features on Facebook website in `React.js` and `PHP`
- Refactored backend infrastructure to support flexible component rendering and faster `GraphQL` data fetching

Planet Blue   Ann Arbor, MI
Student Leader and Management   August 2018 — January 2019

- Promoted time management and morale while organizing proposals resulting in an official brochure for cross-campus composting, along with a visible increase in overall student awareness of key issues
- Established weekly meetings and educational events to improve campus awareness of sustainability issues

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

Personal Website *http://www.catzheng.com*

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

- Lead a team of four to develop an interactive web app on Heroku using a Flask framework, web-scraping using `Beautiful Soup`™ and `Google Firebase`™

Network Attack Detector and DNS Spoofer

- 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`

Pairing PQ

- Implemented pairing heap data structure based on research papers and applied to priority queue

Hardware LC-2K Simulator

- Created programs in `C` to simulate processes of the LC-2K ISA, such as single, multi, and pipelined processors as well as the cache and virtual memory

INVOLVEMENT

Michigan Hackers

ADDITIONAL

- Relevant languages: C++, Python, Javascript (React.js), PHP
- Technologies: Visual Studio Code, LaTeX, Git, Mercurial
- Freelance graphic designer and avid artist — check out my portfolio at catzheng.com!