

HAILUN (SHIRLEY) ZHANG

6114 9th Ave NE, Seattle, WA 98115, U.S. ◇ anninobear@gmail.com ◇ 206-669-6714

EDUCATION

University of Washington, Seattle

Aug. 2018 - June. 2021

Informatics GPA: 3.79/4.0

University of Michigan

July. 2021 - May. 2023

B.S. in Computer Science GPA: 3.94/4.0

University of Wisconsin, Madison

Aug. 2023 - Current

Ph.D. in Computer Science

Courses: Data Structure/Algorithm, Software Design and Implement, Web Programming, Database and Data Modeling, Client-Side Development, Computer Architecture, Operating System, Computer Security, Cryptography, Computer Network

SKILLS

Language: Java, Python, JavaScript, HTML/CSS, Dart, C, C++, Swift, ObjectiveC, SQL, R, OCaml, Rust

Framework & Library & Tools: React, Redux, NodeJS, Flutter, React-Native, Django, Flask, Spring, RESTful API, AWS, SQLite, MySQL, MongoDB, GraphQL, GDB/GCC, Git

RESEARCH EXPERIENCE

Zipper: Latency-Tolerant Optimizations for High-Performance Buses

Oct. 2022

Shibo Chen, Hailun Zhang, Todd Austin

ADA lab of UMich

- A protocol optimization layer reduces communication costs by enabling device and request level parallelism, exploiting data locality. Results show that Zipper provides significant speedup for two accelerators.
- In submission to ASPLOS'24.

Cookie Consent Perception Using Alternative Category Names

Oct. 2022

Lauren DeMaio, Olivia Giandrea, Elaine Jin, Hailun Zhang

Cylab of CMU

- Conduct a research on people's understand about outdated cookie category names and offer an improvement. Results show that statistically significant difference increment when selecting correct cookie definition in 2 categories.
- Poster presented at OurCS, CMU

Air condition monitor iOS application

Mar. 2021

SEAL lab of UW

- Create an iOS app that can receive data from Bluetooth of air condition sensor using Swift, AWS Amplify.
- Use ESP32 chip and Arduino to connect application with Bluetooth.

PROJECTS

A Python based multi-factor authentication toll

Oct. 2022

- Develop a python application that takes in a QR code and output the current Time-based one-time password.
- Simulate the progress of building a TOTP with HMAC-based one-time password.

A C based LC-2K Pipeline simulator

Jan. 2022

- Develop a cycle-accurate behavioral simulator for a pipelined implementation of the LC-2K.
- Resolve data hazard with data forwarding and handle control hazard with branch prediction.

A Java & Dart based online todo list service

Dec. 2020

- Deploy **Flutter** as the front-end framework in order to deploy on iOS, android and web.
- Using **NodeJS** as back-end and **RESTful API** and store user data with **AWS ec2** service and Auth0 for log in system.

EXTRA-CIRCULAR EXPERIENCE

Husky Help Organization

Dec. 2018 - Sep. 2020

Vice-president, tech-department

University of Washington

- Planned and organized the 2019 Freshman Student Welcoming Party and the E-sports competition.
- Take charge of the routine maintenance and management of the website and applets.

World Youth Anti-Bullying Association

Mar. 2019

Volunteer/ Peer Mentor

Remote, Worldwide

- Raise public awareness to reduce and prevent bullying, cyberbullying and other digital abuse through social media platforms.
- Connected resources for students who need mental consultants and legal aids.