Zhennan(John) Zhou
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Education

University of Washington Seattle, WA
Master of Science in Computer Science *Sept. 2021 - Est. Mar. 2023*
GPA: 3.88/4.0

University of Washington Seattle, WA
Bachelor of Science in Computer Science (Cum Laude) *Sept. 2017 – June 2021*
UWCSE Human-Computer Interaction Capstone 2020 Best Design Award

Skills

Programming Languages: Java, Python, C/C++, Swift, JavaScript(TypeScript), HTML/CSS, SQL
Frameworks & Skill Set: App Development(iOS/Android), Flask, Spark Java, Apache Spark, React, SwiftUI/Combine, System Programming, Database System, Networks, Operating System, UI/UX
Tools: IntelliJ IDEA, Xcode, SQLite, MySQL, Version Control(Git), Public Cloud, Human Computer Interaction(contextual inquiry, heuristic evaluation, affinity diagramming, storyboarding)

Professional Experience

Research Assistant Jan. 2021 - Present
Seattle Community Network (LCL Lab, advised by Prof. Kurtis Heimerl and PhD Esther Jang) *Seattle, WA*

- Improved the internet access for approximately 2000 people in low-income communities in Seattle Metro Area.
- Developed and maintained a network performance measurement tool on Android in Java and C++ that increases the testing and data collection efficiency by 60%.
- Optimized and reduced the number of steps required in community donation system by 40%, using Stripe APIs, Flask in Python and JavaScript.

Teaching Assistant (CSE331: Software Design and Implementation) Mar. 2021 – Present
Paul G. Allen School of Computer Science & Engineering *Seattle, WA*

- Taught core concepts from lectures to 30+ students in weekly sections and assisted professors in planning and drafting course/section materials.
- Optimized infrastructures for submitting and grading assignments in Python by improving the submission and auto-grading efficiency by 15%.

Software Engineer Intern July 2019 - Sept. 2019
Miidii Technology Co., Ltd. *Hangzhou, China*

- Collaborated with the design and other engineering teams cross-functionally to build an iOS App called OffScreen, aiming to reduce people's digital addiction on smartphones.
- Designed and implemented the *Focus* feature in the App via user research and using Swift, UIKit and Core Data.
- Remodeled and implemented App's accessibility support by enhancing accessibility coverage by 50% using Swift.

Selected Projects

Ahead (Task management App, iOS) Feb. 2020 – July 2021

- Led in a team of five in the project; coordinated the project progress with version control and code review while facilitating effective cooperation and communication with Scrum meetings.
- Implemented user interfaces and interactions following user research and surveys, and data model middlewares in Swift and UIKit; App reached 1500+ users worldwide.
- Co-developed and maintained CIKit, an open source CocoaPod framework, that enables flexible and convenient configuration of multiple common UIKit components in Swift.

SimpleDB (course project) Jan. 2022 - Mar. 2022

- Developed a database management system that supports basic SQL queries, transactions, crash recovery, and efficient buffer pool memory management.
- Applied page-level locking, cycle-detection deadlock resolution, and ARIES log-based recovery management to support transactions and recovery.
- Used multi-pass hash joins and LRU cache to support large joins and improve the performance to linear speedup.