

Harper (Ruijia) Zhu

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EDUCATION

Cornell University, New York, NY (GPA: 3.54) Aug 2022 - May 2024

- Dual M.S in Information Systems & Applied Information Science(STEM)
- Core Courses: Applied Machine Learning, Intro to Computer Vision, Building Startup System, Security and Privacy In The Wild

University of Washington, Seattle, WA Sep 2017 - Mar 2022

- Bachelor of Art in Biochemistry, International Studies (Honors)
- Teaching Assistant for Software Architecture
- Core Courses: Algorithms and Computational Complexity, Software Architecture for Interactive Systems, Server-Side Development, Client-Side Development, Software Design and Implementation, Data Structures and Algorithms

TECHNICAL SKILLS

Language: Python, JavaScript, Java, R, HTML/CSS, C, TypeScript, MATLAB

Frameworks/Tools: React, Express, Docker, REST API, Figma, AWS Elastic Beanstalk, Azure, , Websocket, Pubnub, Redux

Database: MySQL, MongoDB, SQL lite

Product: SWOT Analysis, Business Analysis, Market Strategy

UX: User Research, Prototyping, Personas, Wireframing, Usability Testing

PROFESSIONAL EXPERIENCE

Software Engineer Intern (Part-time), Coco Health, Seattle, WA (Python, React-Native, Docker) Sep 2020 – Mar 2022

- Used **Python** and **Rasa** to help develop a conversational chatbot designed to combine conversational AI, evidence-based therapies, and insights from top care professionals to tailor caregivers' care plans
- Integrated chatbot with **React Native** and **PubNub** to implement real-time chat feature, resulting in a projected 32% increase in user engagement and reduced response times.
- Deployed a pre-released version using **docker** to achieve containerization and deployment in multiple systems
- Analyzed market research to identify 2 product gaps and a target customer segment of 800,000 caregivers in WA state.
- Served as a product manager for a cross-functional team consisting of engineers and clinical researchers to enhance inter-team communication and establish standard procedures for testing and issue resolution.

Data Science Researcher, Department of Statistics, UW, Seattle, WA (R, Shiny) Sep 2020 – May 2021

- Used **R**, **Shiny** to build a COVID-19 data visualization [web app](#) to visualize the potential spread of COVID-19 via large gatherings to promote mask-wearing behavior on campus.
- Simulated interpersonal interactions among 10,000+ students living on campus using the **network model** to identify 5 potential disease hotspots and correct intervention strategies
- Customized models to include off-campus interactions to simulate the transmission process based on the **SIR model** and stability analysis that improved the accuracy of disease modeling by 53%

ACADEMIC PROJECTS

Check-In Kiosk, New York, New York (React, Express, Node.js, MongoDB, AWS, Firebase) April 2023 - May 2023

- Developed a prototype for a full-stack interactive web application for students to check in for career fairs and school events
- Implemented frontend with React and built backend with **Express** and **Node.js** and updated students' data with **MongoDB**
- Hosted the application through **AWS Elastic Beanstalk** and implemented user authentication using **Firebase** Auth API

Feed Me, Seattle, WA (React, Express, Heroku, Firebase) Sep 2021 - Dec2021

- Developed a prototype for a full-stack interactive web application for fundraising for animal shelters
- Implemented frontend using React and built backend server with **Express** and **Node.js** and deployed on **Heroku**
- Hosted the application and Implemented user authentication and data storage using **Firebase** hosting and **Realtime database**

PERSONAL INTERESTS

Volunteer (New York Presbyterian Hospital, NYC), travel planning, cat fostering, photography