BO LIU

Portfolio: boliu97.github.io
boliu97@outlook.com

EDUCATION

Cornell Tech — Starting in Fall 2023
PhD in Computer Science — NYC, NY

University Of Washington — 2021 – March 2023
Master's in Technology Innovation — Seattle, WA

Clark University — 2016 – 2020
Bachelor's in Arts, Computer Science (Dean's List, 2020) — Worcester, MA
Minor, Entrepreneurship

RESEARCH EXPERIENCE

Research Assistant, Ubiquitous Computing Lab — July 2020 - Present
Advisor: Shwetak Patel — *Seattle, WA*

- Researching and fabricated clothing with embroidered fabric speakers for body movement tracking.
- Researched Intestinal Bowel Disease users' social considerations and preferences on using health apps (self-monitoring apps) with qualitative interview study. [**P1**]
- Designed and implemented a novel method to read glucose strips using a mobile phone sensor. These new sensors are more convenient and affordable than existing patient adherence methods.
- Co-organized and participated in lab events and routines: group meetings, lab lunches, summer high school programs, and mentorship programs.

Research Assistant, Make4All Lab — September 2022 - Present
Advisor: Jennifer Mankoff — *Seattle, WA*

- Researching the haptic exploration of embroidered tactile graphics, abstracting physical information for optimization.

Research Assistant, Pervasive HCI Group, Tsinghua University — April 2021 - August 2021
Advisor: Chun Yu — *Beijing, CHINA*

- Designed and implemented a novel tool that allows people without video editing skills to conveniently create video tutorials for elderly-friendly smartphone usage.[**P2**]
- Served as project manager intern, conducting user research and profiling the target market to turn a research project into a commercial product.

Research Assistant, Clark Computing Lab — September 2019 - May 2020
Advisor: Niu Shuo, John Magee — *Worcester, MA*

- Created three AI-powered applications to track users' mental states and promote better connections between patients and doctors.
- Researched current-stage mental health issues and mobile applications used for mental disorder logs.

PUBLICATION

[**P1**] **Bo Liu**, Jason Hoffman, Chloe Sow, Yuqing Zhang, Shwetak Patel. "Too simple or way too complicated": Patients' Preferences for E-Health Apps for IBD Management. Manuscript was revised and submitted for publication to MobileHCI.

[**P2**] Xiaozhu Hu, Yanwen Huang, **Bo Liu**, Ruolan Wu, Yongquan Hu, Aaron J Quigley, Mingming Fan, Chun Yu, Yuanchun Shi. SmartRecorder: An IMU-based Video Tutorial Creation by Demonstration System for Smartphone Interaction Tasks. Accepted by IUI23.

[**P3**] **Bo Liu**, Wenyu Wang, Yuqing Zhang, Rui Huang, and John Raiti. Lullaland: A Multisensory Virtual Reality Experience to Reduce Stress. Accepted by CHI23 as late-breaking work.

TEACHING

Grader for TECHIN 513 - Managing Data and Signal Processing January 2022 - March 2022

· Hold office hours and grade class projects.

TALKS

[**T1**] **SoundShirt: Continuous body tracking using embroidered speakers on clothing**, Nov 2022
University of Washington Annual Research Showcase, Seattle, WA

[**T2**] **Deep Learning in Art styles Recognition**, Oct, 2019
Clark Fall Fest, Worcester, MA

PROFESSIONAL EXPERIENCE

IT Specialist, Global Innovation Exchange January 2022 - Dec 2022

· Providing technical support to startups, faculty, and students ensuring proper workstation, printer, and VR/AR materials maintenance.
· Maintaining inventory management/surplus control.
· Implemented and maintained security camera systems.

Software Engineering Intern, Synopsys August 2020 - May 2021

· Developed software to solve Incremental Boolean Satisfiability (SAT) problem, which reduces chip verification time. Implementing this by including functions missing in the existing industry-leading software.
· Designed and developed dashboards that convert JSON data into easy-to-understand information, allowing customers to get information without having to understand JSON files and conduct analysis.

ADDITIONAL PROJECT

Software Engineer & UX Researcher, Artify June 2022 - December 2022
Sponsored by T-Mobile

· A graduate project designed a future AR museum visit using 5G and cloud computing.
· Investigated current AR applications' limitations and general public interactive museum visiting experience with quantitative methods.
· Designed and developed frontend interfaces and backend servers to connect Hololens(AR devices) with three rounds of usability testing.

MENTORSHIP

1. Chloe Sow (Senior high school student)
Researched and designed semi-structure interview questions and prototype[P1]

AWARD

Cornell Fellowship 2023

Gary Marsden Travel Award 2023

University of Washington Graduate Student - Conference Presentation Awards 2022

ClarkCONNECT Award 2020

Selected as a funded student to attend **Giersch International Symposion, Germany, 2019**

SKILLS

Programming Skills:
C, Python. Kotlin, Java

Fabrication:
Arduino, Circuit Design, Embroidery Design, 3D printing, Laser Cutting.

User Research:
IRB Writing, Interface Design, Interview Design, Qualitative Data Analysis.