

Kevin H. Ouyang

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Education

Brown University | Aug 2016—May 2020

Providence, RI

Bachelor of Science, Computer Science (Design and Machine Learning)

Senior Thesis: *Procedurally Guided Self-Experiments for Novice Health Hackers*

Acquincum Institute of Technology | Aug 2018—Dec 2018

Semester abroad in Budapest, Hungary

Recurse Center (f.k.a. Hacker School) | June 2018—Aug 2018

Member of summer batch in New York, NY

Research Interests

I am a technical HCI researcher hoping to take on projects at the intersection of system design, culture studies, and science and technology studies, or to engage in work that is both critical and constructive (inspired by Philip Agre's notion of [critical technical practice](#)). I feel compelled by [prefigurative design](#) as articulated by Mariam Asad. Some other areas that I am interested in:

- human-computer interaction: sociotechnical system design, personal informatics
- culture and computation: cyberinfrastructure studies, design studies

Research Experience

Head Research Assistant, Brown HCI Group | Jan 2019—May 2020

Providence, RI

- Devised and implemented a novel, data-driven self-experimentation system, Self-E, which scaffolds self-experiment setup, delivers statistical results using Thompson Sampling, and operationalizes data collection and randomized experiment phases.
- Prototyped, and conducted in-person tests of user workflows
- Implemented mobile client and frontend in Android Native (Java)
- Deployed system to the Google Play store to collect real-world user behavior data
- Evaluated Self-E with data from two separate studies; submitting to journal by Fall 2020

Teaching Experience

CS for Social Change | Spring 2020

- Undergraduate Teaching Assistant to Professor Ugur Centintemel
- Helped build syllabus by selecting weekly readings and discussion questions for CS students interested in ethics, technology, and policy
- Facilitated in-class activities and discussions; graded assignments for class of 20 students
- Managed a team of 4 students to build an iOS mobile app that provides encrypted mobile storage for journalists and frontline activists to document abuses of state power, such as police brutality and voter suppression

Introduction to Algorithms and Data Structures | Spring 2018

- Undergraduate Teaching Assistant to Professor Seny Kamara
- Lead weekly sessions, hosted office hours for students, graded student homework
- Departmental mentor for class of 300+ students, with special focus advising 6 students
- Topics covered: recursion, induction, graphs, decision trees, dynamic programming, runtime

Introduction to Object-Oriented Programming | Fall 2017

- Undergraduate Teaching Assistant to Professor Andries Van Dam
- Assisted professor with educating class of 400+ students, hosted office hours and taught programming fundamentals to CS beginners
- Topics covered: Object-oriented programming, JavaFX, interactive graphics
- Projects include Tetris, Pacman, and Doodlejump

Other

- Spring 2020: Helped write assignment for graduate-level HCI course

Industry Experience

Blockchain Development Intern, BlockApps | June 2020—Present

New York, NY

- Contributed to the Identity project, using X.509 certificates to make peer-to-peer node signatures human-readable
- Designed and implemented frontend user interface for generating Certificate Signing Requests during node start-up
- Work in Haskell, Javascript

Software Engineering Intern, Facebook | June 2019—Aug 2019

Menlo Park, CA

- Working with the Machine Learning Infrastructure team, built a localized version of distributed scheduler (Chronos) that uses Thrift RPC calls to schedule and execute jobs in DAG order with specifiable retry policy
- Using this local version of Chronos, designed and implemented a framework for single-box testing to catch class of errors that occurred during interactions between Flow server, Driver, and user workflow logic

Skills

Languages and frameworks: Python, R, GoLang, Haskell, Java, Git, Tensorflow

Software Engineering (backend, some frontend)

Mobile development (Android)

User Testing

Wireframing

Design Thinking

Awards and Honors

iProv Fellow | June 2017—Aug 2017

Pawtucket, RI

- Received Swearer Center fellowship to work with a team in the Rhode Island Coalition for the Homeless that specializes in LGBTQ youth homelessness
- Wrote point-in-time survey with Data Integrity Specialist to collect data about LGBTQ youth homelessness in Rhode Island
- Gained experience with social work and case management through trainings and bi-weekly street outreach sessions

Relevant Coursework

Human-Computer Interaction (graduate level)

Critical Video Game Studies

User Experience Design (AIT Budapest)

Deep Learning

Machine Learning

Real Analysis

Abstract Algebra

Distributed Computer Systems

Statistical Inference

Extracurricular Activities

Student Diversity Advocate, Brown CS Department | Jan 2019—Jan 2020

Workshop Facilitator, Third World Transition Program | Aug 2019

Meiklejohn Peer Advising | Aug 2017—May 2018

Brown Asian American Mentoring Program | Aug 2017—May 2018