Yasha S. Iravantchi

University of Michigan EECS
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https://yasha.xyz
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## Research Interests

Human-Computer Interaction (HCI), Novel Sensing Methods, Ubiquitous Computing

## Education

**University of Michigan,** Ann Arbor, MI — *Sep 2019 to Present*
Ph.D. Student, Computer Science and Engineering
Advisor: Alanson Sample

**Harvard College**, Cambridge, MA — *May 2014*
S.B., Engineering Sciences:
Electrical Engineering & Biomedical Engineering

## Professional Experience

**Design Specialist in Electrical Engineering** — *Jun 2014 to Jun 2017*
Active Learning Labs, Harvard University SEAS
Cambridge, MA

**Product Design and Engineering Intern** — *Summers 2009-2012*
Design Catapult, Inc.
Fountain Valley, CA

## Publications

7. **Yasha Iravantchi**, Mayank Goel, Chris Harrison. Digital Ventriloquism: Giving Voice to Everyday Objects. *To Appear In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20)*, 2020

6. Yang Zhang, **Yasha Iravantchi**, Haojian Jin, Swarun Kumar, and Chris Harrison. 2019. Sozu: Self-Powered Radio Tags for Building-Scale Activity Sensing. In *Proceedings of the 32nd Annual ACM Symposium on User Interface Software and Technology* (UIST '19), 2019

5. **Yasha Iravantchi**, Yang Zhang, Evi Bernitsas, Mayank Goel, Chris Harrison. Interferi: Gesture Sensing using On-Body Acoustic Interferometry. *In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI '19)*, 2019 - ***Best Paper Honorable Mention Award***

4. **Yasha Iravantchi**, Mayank Goel, Chris Harrison. BeamBand: Hand Gesture Sensing with Ultrasonic Beamforming. *In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI '19)*, 2019

3. Sunyoung Kim, **Yasha Iravantchi**, Krzysztof Z. Gajos. SwellFit: Developing a Wearable Sensor for Monitoring Peripheral Edema. *In Proceedings of the 52nd Hawaii International Conference on System Sciences (HICSS-52)*, 2019

2. Sunyoung Kim, **Yasha Iravantchi**, Krzysztof Z. Gajos, Barbara Grosz. SwellFit: a Wearable Sensor for Patients with Congestive Heart Failure. In *Proceedings of the Workshop on Interactive Systems in Healthcare (WISH) 2016*, 2016.

## Publications

1. Sunyoung Kim, **Yasha Iravantchi**, Krzysztof Z. Gajos, Barbara Grosz. Exploring Opportunities for Social Infrastructure in Congestive Heart Failure Management. In *Proceedings of the CSCW 2015 workshop on Moving Beyond e-Health and the Quantified Self*, 2015

## Invited Talks

2. *"Labs in the Wild": Teaching Signal Processing Using Wearables and Jupiter Notebooks in the Cloud*. SciPy Conference 2016, Austin, TX

1. *Wearable Signal Processing Using Docker Notebook Containers on AWS. JupyterDays Boston 2016*, Cambridge, MA

## Teaching Experience

Teaching Fellow:
ES 155 Biological Signal Processing (Spring 2016, Fall 2016)
ES 50 Introduction to Electrical Engineering (Spring 2013, Spring 2014)
BE 110 Physiological Systems Analysis (Fall 2013)

Course Assistant:
ES 52 The Joy of Electronics - Part I (AY 14, 15, 16)
ES 96 Engineering Problem Solving and Design Project (AY 14, 15, 16)
ES 100 Engineering Design Projects (AY 14, 15, 16)
ES 151 Applied Electromagnetism (Spring 2016)

## References

Alanson Sample
Associate Professor in Electrical Engineering and Computer Science
Interactive, Sensing and Computing Group
University of Michigan
e: apsample@umich.edu

Todd Austin
Professor in Electrical Engineering and Computer Science
Center for Architectures Research (C-FAR)
University of Michigan
e: austin@umich.edu

Krzysztof Z. Gajos
Gordon McKay Professor of Computer Science
Intelligent Interactive Systems Group
Harvard University SEAS
e: kgajos@seas.harvard.edu

## Community Service

Student Volunteer:
ACM CHI Conference on Human Factors in Computing, April 2018

## Languages

Computer Languages:
C, MatLab, LaTeX, HTML, PHP, Java, JavaScript, Python

Human Languages:
English (Native), Persian (Native), Spanish (Previously Fluent)