

Yasha S. Iravantchi

CONTACT INFORMATION	29 Oxford St., Pierce G11B Cambridge, MA 02138	http://yasha.xyz yasha@seas.harvard.edu
RESEARCH INTERESTS	Fabrication, wearables, ubiquitous computing, signal processing, and biosignals.	
EDUCATION	Harvard University , Cambridge, MA S.B., Engineering Sciences (Tracks: Electrical Engineering/Biomedical Engineering)	May 2014
PROFESSIONAL EXPERIENCE	Design Specialist in Electrical Engineering Active Learning Labs, Harvard University SEAS Cambridge, MA Product Design and Engineering Intern Design Catapult, Inc. Fountain Valley, CA	June 2014 to present Summers 2009-2012
RESEARCH EXPERIENCE	Research Affiliate Intelligent Interactive Systems Group, Harvard University SEAS Supervisor: Prof. Krzysztof Z. Gajos	June 2013 to present
PUBLICATIONS	<ol style="list-style-type: none"> 1. Sunyoung Kim, Yasha Iravantchi, Krzysztof Z. Gajos, and Barbara Grosz. SwellFit: a Wearable Sensor for Patients with Congestive Heart Failure. In <i>Proceedings of the Workshop on Interactive Systems in Healthcare (WISH) 2016</i>, 2016. 2. Sunyoung Kim, Yasha Iravantchi, Krzysztof Z. Gajos, and Barbara Grosz. Exploring Opportunities for Social Infrastructure in Congestive Heart Failure Management. In <i>Proceedings of the CSCW 2015 workshop on Moving Beyond e-Health and the Quantified Self</i>, 2015. 	
PRESENTATIONS AND TALKS	<i>How to Measure Things</i> (ES 100 Senior Capstone Lecture) <ul style="list-style-type: none"> • Harvard Active Learning Labs, Cambridge, MA <i>How to Make Your Own Wearable</i> (Workshop) <ul style="list-style-type: none"> • Harvard Active Learning Labs, Cambridge, MA <i>"Labs in the Wild": Teaching Signal Processing Using Wearables and Jupyter Notebooks in the Cloud</i> (Talk) <ul style="list-style-type: none"> • SciPy Conference, Austin, TX <i>Wearable Signal Processing Using Docker Notebook Containers on AWS</i> (Talk) <ul style="list-style-type: none"> • JupyterDays Boston, Cambridge, MA <i>How to Measure Things</i> (ES 100 Senior Capstone Lecture) <ul style="list-style-type: none"> • Harvard Active Learning Labs, Cambridge, MA <i>EE Zero-To-Sixty Workshop</i> (Harvard J-TERM Workshop) <ul style="list-style-type: none"> • Harvard Active Learning Labs, Cambridge, MA <i>Data Measurement and Analysis</i> (ES 100 Senior Capstone Lecture) <ul style="list-style-type: none"> • Harvard Active Learning Labs, Cambridge, MA 	 Oct 2016 July 2016 July 2016 Mar 2016 Oct 2015 Jan 2015 Oct 2014
TEACHING EXPERIENCE	Course Staff ES 96 - Engineering Problem Solving and Design Project Instructor: Varies by semester School of Engineering and Applied Sciences, Harvard University Course Staff ES 100 - Engineering Design Projects Instructor: Prof. Rob Wood School of Engineering and Applied Sciences, Harvard University	AY 2014-15, AY 2015-16, AY 2016-17 AY 2014-15, AY 2015-16, AY 2016-17

Teaching Fellow	ES 155 - Biological Signal Processing Instructor: Prof. Demba Ba School of Engineering and Applied Sciences, Harvard University	Spring 2016, Fall 2016
Course Assistant	ES 151 - Applied Electromagnetism Instructor: Mohamed Abouzahra, Ph.D. and Joseph Usoff, Ph.D. School of Engineering and Applied Sciences, Harvard University	Spring 2016
Teaching Fellow	ES 50 - Introduction to Electrical Engineering Instructor: Profs. Marko Loncar and Evelyn Hu School of Engineering and Applied Sciences, Harvard University	Spring 2013, Spring 2014
Teaching Fellow	BE 110 - Physiological Systems Analysis Instructor: Prof. Daniel Merfeld School of Engineering and Applied Sciences, Harvard University	Fall 2013

UNDERGRADUATE RESEARCH PROJECTS	<ol style="list-style-type: none"> <i>Robust Eye BlinkBased Selection Technique for Gaze-Based Interaction</i> Advisor: Prof. Krzysztof Gajos (Harvard SEAS) <i>Mitigating the Effects of Interruptions and Task Switching using Blink-Based Interfaces</i> Advisor: Prof. Krzysztof Gajos (Harvard SEAS) <i>Using EEG Noise as a Means for Adding Robustness to Eye Gaze Interfaces</i> Advisor: Prof. Krzysztof Gajos (Harvard SEAS) <i>PCA-Based Face Detection using FOSSCAM IP Camera and Facebook</i> Advisor: Prof. Jim Waldo (Harvard SEAS) <i>LightningVolt: A bicycle-based mobile device charger</i> Advisor: Prof. Gu-Yeon Wei (Harvard SEAS) 	
REFERENCES	<p>Krzysztof Z. Gajos Professor Intelligent Interactive Systems Group Harvard University SEAS E-mail: kgajos@seas.harvard.edu</p> <p>Sunyoung Kim Assistant Professor School of Communication and Information Rutgers University E-mail: sunyoungkim@rutgers.edu</p> <p>Anas Chalah Executive Director of Active Learning School of Engineering and Applied Sciences Harvard University E-mail: achalah@seas.harvard.edu</p>	
HARDWARE AND SOFTWARE SKILLS	<p>Engineering Hardware: Arduino, Raspberry Pi, BeagleBone, Neurosky MindWave, OpenEEG, Google Glass, Android, GazePoint EyeTracker, Empatica E4, EE Lab Stack (e.g. Oscilloscope, Function Generator)</p> <p>Engineering Software: SolidWorks, MATLAB/Simulink, LabView, Eagle, OpenCV, Open-Vibe, iPython/Jupyter</p>	
LANGUAGES	<p>Computer Languages: C, MATLAB, L^AT_EX, HTML, CSS, PHP, JavaScript, Python (incl. NumPy, SciPy, SciKitLearn)</p> <p>Human Languages: English (Native), Persian (Native), Spanish (Fluent)</p>	