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Electrical Engineer

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EDUCATION	09.13 - NOW	University of Washington , Seattle, Washington PhD student in Electrical Engineering with a focus in ubiquitous computing and mobile health
	08.08 – 05.12	Harvey Mudd College , Claremont, California Bachelor of Science with Honors in Engineering with focus in embedded systems and health applications Major GPA of 3.85 Ranked 4 of 64
EXPERIENCE	06.15 – 09.15	Microsoft Research Internship , Redmond, WA <i>Research Intern under Gabe Cohn and Desney Tan of the Medical Devices Group</i> Researched out-of-clinic monitoring of cardiac failure patients.
	09.13 – 09.14	Intel ISTC Research Fellowship & Internship , Seattle, WA Santa Clara, CA <i>Research Assistantship under Shwetak Patel of Ubiquitous Computing Lab at UW</i> <i>Research Internship under Richard Chow of the Privacy and Security Group at Intel</i> Researched different sensing techniques for IoT applications and helped design a IoT framework that revolves around services rather than physical devices. Publications at Ubicomp 2015 and Percom 2016.
	06.13 - 09.13	Hasso Plattner Institute HCI Laboratory , Potsdam, Germany <i>Research Intern under Patrick Baudisch of HCI Lab at HPI</i> Built various wearable haptic devices with an aim to create a notification system on the skin. Collaboration with another student who will be publishing this work at UIST 2014.
	2011 - 2012	Capstone Project Joint w/Kogakuin University , Claremont, CA Tokyo, Japan <i>Embedded Systems Engineer/Group Manager</i> Developed a minimally invasive health monitoring system by embedding sensors into a variety of everyday items such as a walking cane. Combined my experience in mechanical and electrical engineering to lead a team of 9 multidiscipline engineers. Main technical contributions included interfacing analog and serial devices with a microcontroller and designing PCBs.
	2010 - 2012	HMC Underwater Robotics Club , Claremont, CA <i>Co-Founder/President</i> Managed 15 student team under a \$13K budget in design, fab, and test of an underwater, remotely operated vehicle (ROV) to compete in the international ROV competition.
	05.11 – 12.11	HMC Bio-Signals Processing Lab Course , Claremont, CA <i>Lead Course Designer/ Lab Proctor</i> Conducted the development of a bio-signals processing laboratory class to teach HMC sophomores about experimental design for sampling and analyzing biological signals from the human body.
PUBLICATION	09.16	HemaApp: Noninvasive Blood Screening of Hemoglobin using Unmodified Smartphones <i>UbiComp 2016 Best Paper Award (Top 1% of Submissions)</i> Edward Jay Wang, W. Li, D. Hawkins, T. Gernsheimer, C. Norby-Slycord, S. N. Patel
	08.16	A Smartphone-Based System for Assessing Intraocular Pressure <i>EMBC 2016</i> A. Mariakakis, Edward Wang, S. Patel, J. Wen
	03.16	What Can I Do Here? A Framework for IoT Service Discovery <i>Percom 2016 IoT Workshop</i>

Edward Jay Wang, Richard Chow

- 09.15 **MagnifiSense: Inferring Device Interaction using Wrist-worn Passive Magneto-Inductive Sensors** *Ubicomp 2015 Conference*
Edward Jay Wang, T.J. Lee, A. Mariakakis, M. Goel, S. Gupta, S. Patel
- 12.12 **Discussion of Difficulties in Leveraging Over-familiar Items in Design of Elderly Health Monitoring Systems** *HCII 2013 Conference*
Edward Jay Wang, S. Ipser, P. Little, B. Liu, N. Duncan, S. Nakamura
- 10.10 **Quantitative Study of Nasal Tip Stiffness: in vivo Mechanical Testing Using a Custom Built Apparatus** *Southern California Conference for Undergraduate Research*
Edward Wang and Spencer Tung

- AFFILIATIONS/
AWARDS 2016 Best Paper Award for HemaApp (Top 1% at UbiComp2016)
- 2014 NSF Graduate Research Fellowship
- 2011 – 2012 President of Tau Beta Pi CA-W Chapter
- 2012 Departmental Honors for Harvey Mudd College Engineering
- 2010 J.R Phillips Award for demonstrating excellence in exercising engineering judgment

- SELECT PRESS 2016 technologyreview.com/s/602248/how-to-make-a-smartphone-detect-anemia/washington.edu/news/2016/09/07/hemaapp-screens-for-anemia-blood-conditions-without-needle-sticks/
- 2015 geekwire.com/2015/uw-researchers-build-wearable-sensor-that-could-help-people-shrink-their-carbon-footprint/
- power-technology.com/features/featuremagnifisense-the-wearable-tech-that-learns-your-energy-habits-4671389/
- spectrum.ieee.org/energywise/consumer-electronics/portable-devices/wearable-device-uses-your-local-em-field-to-track-your-electronic-use-
- byuradio.org/episode/c3f3314b-4c13-478c-86a4-503e999a5c9a?playhead=3490

- SKILLS
- Software:** Strong working knowledge of Microcontrollers, Python, Real-time Digital Signal Processing, Java, Matlab, HTML5, CSS3, Android
Familiar with Computer Vision, Machine Learning, Javascript
- Prototyping:** PCB Design, Laser Cutter, Soldering, 3D CAD, Material Selection with particular familiarity with stress analysis and adhesives
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