Eric Gene Wu

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EDUCATION

Stanford University | **Stanford, CA** Expected June 2022
Ph.D., Electrical Engineering

University of California, Berkeley | **Berkeley, CA** May 2016
B.S., Electrical Engineering and Computer Science

Miramonte High School | **Orinda, CA** June 2012
High School Diploma

RESEARCH EXPERIENCE

University of California, Berkeley | **Berkeley, CA** Fall 2014-present
Undergraduate Researcher, Department of Electrical Engineering and Computer Science

· Worked under the direction of professor Ali Javey
· Designed, simulated, and characterized performance of 3D-printed flexible dipole antennae
· Designed, characterized, and tested circuits for drug delivery and analog signal conditioning for sweat content analysis
· Designed, characterized, and tested circuits for contactless impedance spectroscopy for sweat rate monitoring

Stanford University School of Medicine | **Stanford, CA** Summer 2012, Summer 2013
Undergraduate Researcher, Department of Pathology

· Worked under the direction of professor Steven Montgomery
· Conducted statistical simulations in R to model sQTL (splicing quantitative trait loci) discovery
· Programmed in Python and R to create tools for statistical analysis on RNA-seq and genotype data
· Developed and published SplicePlot, a Python tool for visualizing sQTL data
· Developed analysis pipeline for quantifying and statistical testing of alternative splicing data in populations

TEACHING EXPERIENCE

University of California, Berkeley | **Berkeley, CA** Spring 2016
Undergraduate Student Instructor, Department of Electrical Engineering and Computer Science

· Taught two weekly hands-on lab sections for undergraduate electrical engineering course (EE16B)
· Proctored and graded exams
· Supervised final project with design emphasis

University of California, Berkeley | **Berkeley, CA** Spring 2015
Undergraduate Student Instructor, Department of Electrical Engineering and Computer Science

· Taught one weekly hands-on lab section for introductory undergraduate electronics course (EE 40)
· Proctored and graded midterm and final exams
· Provided guidance and supervision for open-ended final project

University of California, Berkeley | **Berkeley, CA** Fall 2014
Academic Reader, Department of Electrical Engineering and Computer Science

· Graded homeworks for 400 person introductory undergraduate electronics course (EE 40)
· Responded to questions about homework and regrade requests

University of California, Berkeley | **Berkeley, CA** Fall 2014-present
IEEE Student Branch Officer

· Taught one weekly section of 30-person Hands On Practical Electronics (HOPE) course for non-majors
· Helped design curriculum for course
· Participated in campus and departmental outreach programs to encourage participation in engineering

WORK EXPERIENCE

Bloomberg LP | **New York, NY** Summer 2014

Financial Software Developer Intern, Bloomberg Tradebook

· Worked on the PAIR/CMS team at Bloomberg Tradebook
· Added commonly-used query functionality to an internal database querying function
· Added sorting, filtering, and aggregation functionality to a tool used to maintain task settings
· Extended stock market tick simulator to support sending multiple simultaneous ticks
· Added feature hit counting to NLEG trading platform

PUBLICATIONS

1. Wu, E., Nance, T. & Montgomery, S.B. SplicePlot: a utility for visualizing splicing quantitative trait loci. *Bioinformatics* 30, 1025-1026 (2014).
2. Li, X., Battle, A., Karczewski, K.J., Zappala, Z., Knowles, D.A., Smith, K.S., Kukurba, K.R., Wu, E., Simon, N., Montgomery, S.B. Transcriptome Sequencing of a Large Human Family Identifies the Impact of Rare Noncoding Variants. *The American Journal of Human Genetics* 95, 245-256 (2014).
3. Ota, H. et al. Application of 3D Printing for Smart Objects with Embedded Electronic Sensors and Systems. *Advanced Materials Technologies* (2016). doi:10.1002/admt.201600013
4. Gao, W. et al. Wearable Microsensor Array for Multiplexed Heavy Metal Monitoring of Body Fluids. *ACS Sensors* (2016). doi:10.1021/acssensors.6b00287

AWARDS AND DISTINCTIONS

· **Dean's Honors**, Spring 2013, Fall 2013, Spring 2014, Fall 2014, Fall 2015
· **Siemens Competition Regional Finalist**, Fall 2010

PROFESSIONAL ORGANIZATIONS AND AFFILIATIONS

· **Member, Eta Kappa Nu**
· **Member, Tau Beta Pi**
· **Member, IEEE**
· **Officer, IEEE UC Berkeley Student Branch**

SKILLS AND TECHNOLOGIES

· **Programming languages:** Python, Java, C, Javascript, C++, MATLAB, Verilog, assembly
· **Simulation tools:** Sentaurus, Modelsim, HSPICE, Cadence
· **Lab skills:** Circuit design, PCB layout, electronics lab bench, cell culture, fluorescence microscopy, soft lithography