

Adam C. Yang

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(217)550-2667 · adamcy99@gmail.com

Electrical engineer with experience developing semiconductor devices through data. Currently developing technical skills at UC Berkeley to fulfill aspirations of transitioning to a data science and machine learning role.

Education

University of California, Berkeley Master of Information and Data Science	Expected Graduation: Summer 2019 GPA: 4.00/4.00
<ul style="list-style-type: none">• w241 Experiments and Causality – Designed and conducted a controlled field experiment to determine the effects of political news articles on stress.• w207 Applied Machine Learning – Implemented machine learning model to tackle the “Google Analytics Customer Revenue Prediction” problem on Kaggle. Resulting score was equivalent to the 554th place on the Kaggle leaderboard.• w261 Machine Learning at Scale – Final project pending.	
Georgia Institute of Technology Master of Science, Electrical Engineering Minor in Computer Science	Graduated: Dec 2015 GPA: 3.80/4.00
University of Illinois at Urbana-Champaign Bachelor of Science, Electrical Engineering	Graduated: May 2014 GPA: 3.53/4.00
<ul style="list-style-type: none">• <i>Graduated with Honors</i>• <i>Dean's List</i>	

Experience

International Business Machines <i>Product Yield and Characterization Engineer</i>	March 2016-Present
Oversees SRAM related defect monitoring and analysis. Daily responsibilities include tracking and monitoring SRAM yield and analyzing bit fail maps to diagnose chip and wafer level electrical fails. Conducts extensive data mining for correlations and trend analysis to isolate device flaws and improve product yield. Coordinate daily with multiple engineering teams in the microprocessor design and fabrication process to communicate findings.	
<ul style="list-style-type: none">• Implemented a Python and SQL based algorithm to identify and track fin residue fail signatures on product wafers.• Personally discovered and diagnosed multiple defect signatures that impact in-line SRAM yield through data analysis.• Discovered and investigated discrepancies in the critical dimensions of device gate and its impact on low voltage yield loss. This resulted in a drastic improvement of low voltage 4 Meg SRAM yield and fixed a systematic defect in the lithography process.• Analyzed the impacts of device gate height to yield and metrology parameters to help evaluate whether the increased performance justifies the potential yield loss.• Tracked and analyzed large defect signatures which revealed silicon oxidation occurring during the gate contact etch process as the wafers sit too long in the FOUP. This discovery and fix resulted in a 20% SRAM yield increase.	

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PSYONIC Biotechnology (Bretl Research Group)

Research Assistant

April 2015-July 2015

- Designed, tested, and improved prototype variations of electromyography (EMG) circuits for robotic prosthesis control and documented specifications of how the circuit needs to be built to behave appropriately.
- Experimented with Bipolar and Unipolar power supplies as well as designing various EMG circuits to minimize noise
- Designed and experimented with circuits for pressure sensors to be used in prosthetic fingers for tactile feedback via electrical stimulation to the user
- Worked with a team to develop low cost robotic prostheses for amputees with the capability of recreating tactile feedback and proprioception

Senior Design (University of Illinois at Urbana Champaign)

Spring 2014

- Led a team that designed and built an intuitive hand-motion based glove controller for a commercial closed-sourced quadcopter as well as a track and follow system between the quadcopter and the glove controller.
- Demonstrated extensive soldering, Arduino programming, PCB design on Eagle, as well as numerous hands-on skills required to design and test the circuit.

Skills

Computer Skills: Have project experience in Python, R, Pyspark, Hadoop Map Reduce, SQL, Matlab, C, LC-3, Processing, Java, Arduino language, Unity 3D, and VHDL programming onto an FPGA as well as PCB design on Eagle CAD software.

Language Skills: English (native), Mandarin (native), Thai (fluent), Spanish (intermediate).

Leadership Experience and Awards

Chi Sigma Tau Fraternity – Vice President, National Board Liaison, Secretary, etc.

2010 - 2014

Dale Carnegie Leadership Training

Summer 2010

Boy Scouts of America Eagle Scout

1998 - 2010