

# Abraham Gonzalez

1636 Grant Street Apt. B, Berkeley, CA 94703

abe.j.gonza@gmail.com — (915)-545-3405 — linkedin.com/in/abraham-j-gonzalez/

---

## Education

**Ph.D. — Electrical Engineering and Computer Science** Aug. 2018  
University of California at Berkeley

**Bachelors of Science — Electrical Engineering** May 2018  
The University of Texas at Austin  
GPA - Overall 3.98/4.00 Major 3.98/4.00

## Relevant Coursework

Computer Architecture, Digital Systems Design Using HDL, Embedded Systems Design Lab, Real-time Operating Systems, Algorithms, Digital Logic Design, Honors Eng. Design I & II, Software Design I & II, Electric Circuits Lab, Solid State Electronic Devices, Electromagnetic Eng., Eng. Communication, Circuit Theory, Intro to Probability

## Experience

**Scalable Performance CPU Development Group Intern** May 2018 - Aug. 2018  
Intel — Austin, TX

- Worked on debugging tools for microcontroller integration team.
- Helped setup infrastructure between firmware team and microcontroller integration team to speed up work.

**Microsystems Technology Lab Intern** Jun. 2017 - Aug. 2017  
Massachusetts Institute of Technology — Cambridge, MA

- Researched variations in electroplating growth in redistribution layers under the supervision of Dr. Boning.
- Designed various neural networks and machine learning models for electroplating growth using Tensorflow.
- Presented final research poster summarizing work and participated in multiple MITSRP workshops.

**QCA Research Assistant** May 2015 - Aug. 2016  
The University of Texas at Austin — Austin, TX

- Researched and designed Quantum Cellular Automata (QCA) circuitry with Dr. Swartzlander.
- Optimized QCA implementations of the Carry-Lookahead and Conditional Sum adder through QCA Designer.
- Reported back to Dr. Swartzlander on results and improvements to QCA circuit designs and layouts.

**Office Shared Graphics Explore Intern** May 2016 - Aug. 2016  
Microsoft — Redmond, WA

- Created and added new features within the Office Ink suite using C++.
- Created physical network of Arduino microcontrollers for OneWeek Hack-a-thon that once connected to each other sent a unique code to main server (HTTP requests).

**UIM Driver Intern** May 2015 - Aug. 2015  
Qualcomm — San Diego, CA

- Designed software framework for smartcard interaction in C++/CLI and C++.
- Integrated framework into .NET application managing smartcards via CCID by utilizing APDU transmission and logging; file system viewing; file data parsing and manipulation; and smartcard reader management.

## Research Presentations

**Engineering Science Symposium Poster Session** Nov. 3, 2017  
Society of Hispanic Professional Engineers National Conference — Kansas City, MO

- Research Presented: A Machine Learning Approach to Modeling Electroplating Process Variations in IC Redistribution Layers
- Awarded 2nd Place in Engineering Science Symposium Poster Competition

**MITSRP Poster Session** Aug. 10, 2017  
Massachusetts Institute of Technology — Cambridge, MA

- Research Presented: A Machine Learning Approach to Modeling Electroplating Process Variations in IC Redistribution Layers

## Skills

Experience with C/C++/C#/CLI, Android Java, Python, TensorFlow, Verilog/VHDL, Git, LC-3/ARM Assembly  
Experience with Tiva Launchpad, Arduino, SparkFun, and Particle Core microcontrollers

## Professional Leadership and Membership

Vice President (Spr. 2018), and Corresponding Secretary (Fall 2017) of HKN Honor Society  
Member of HKN Honor Society (Spr. 2016-Now)  
Academic Director (Fall 2016-Fall 2017), and member (Fall 2014-Now) of Society of Hispanic Professional Engineers

## Accomplishments

Berkeley Fellowship (Fall 2018), EECS Excellence Award (Fall 2018), GEM Fellowship (Spr. 2018),  
Highest Honors (Spr. 2017), Distinguished College Scholar (Spr. 2017/2018), College Scholar (Spr. 2016),  
R. Rocca (Fall 2017), V. L. Hand Endowed (Fall 2016), and Texas Instruments Diversity Scholarship (Fall 2015)