

Abraham Gonzalez

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Education

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

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.

Printing Electronics Research Assistant

Jan. 2017 - Jun. 2017

The University of Texas at Austin — Austin, TX

- Researched and fabricated printed antennas under the supervision of Dr. Chen.
- Printed and tested fixed PAA antennas on Kapton with various nano-particle inks.

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
Experience with soldering, oscilloscopes, logic analyzers, multimeters

Professional Leadership and Membership

Corresponding Secretary of HKN Honor Society (Summer 2017-Present) and member (Spring 2016-Present)

Equal Opportunity in Engineering (EOE) Pi tutor (Fall 2015, Fall 2017)

Member of Society of Hispanic Professional Engineers (Fall 2014-Present)

Academic Director of Society of Hispanic Professional Engineers (SHPE) (Summer 2016-Summer 2017)

3DS Austin Organizer Committee member (Fall 2014-Fall 2015) and participant (Fall 2014)

Accomplishments

Highest Honors (Spring 2017), Distinguished College Scholar (Spring 2017/2018), College Scholar (Spring 2016)
GEM Fellowship (Spring 2017), Roberto Rocca Scholarship (Fall 2017), Victor L. Hand Endowed Scholarship (Fall 2016), Texas Instruments Diversity Scholarship (Fall 2015)