Bassel Alesh

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EDUCATION

Bachelor of Science in Electrical Engineering **GPA: 3.84/4.00**
University of Illinois at Urbana-Champaign August 2014 - December 2017

Relevant Coursework [F17 = Fall 2017 Coursework]

Wireless Communication Systems	Analog IC Design
Microwave Circuits and Devices	Automated Microwave Measurements
Digital Systems Lab	Fields and Waves (I & II)
Electronic Circuits (+ Lab)	Computer Systems & Programming
Digital Signal Processing	Semiconductor Electronics [F17]
Active Microwave Circuit Design [F17]	Data Structures [F17]

SKILLS

Languages: Python, C, C++, SystemVerilog, Bash, MATLAB.
Software: ADS, Cadence Virtuoso, EAGLE, HFSS, PSPICE.
Lab: VNAs, Spectrum Analyzers, Signal Generators, Oscilloscopes, Multimeters.

EXPERIENCE

Digital Hardware Engineering Intern May 2017 - August 2017
Qualcomm Inc. San Diego, CA

- Working on the PLL of a transceiver chip for the RFIC Digital Design team.
- Extracted the RLCk parasitics of the digital modules' nets using RaptorX.
- Created a testbench using Cadence Virtuoso that simulated signal delays along the extracted model and reported the results in the design review.
- Wrote a Bash script that maintains version control for different tools' runs.
- Wrote a Python script that facilitates a test performed on specific digital blocks.

Undergraduate Research Assistant September 2016 - Present
University of Illinois at Urbana-Champaign Champaign, IL

- Created models for transmission lines and their designated coupling behavior using Python for quicker simulations of large-scale systems.

Undergraduate Grader for Fields & Waves I September 2016 - May 2017
University of Illinois at Urbana-Champaign Champaign, IL

- Homework grader and review session organizer for ECE 329. Topics include Maxwell's equations, transmission line theory, and Smith Chart applications.

Product Development Intern May 2016 - August 2016
AT&T Inc. Atlanta, GA

- Worked with an LTE modem board purposed for AT&T's IoT platform.
- Tested the board's UART, GPIO pins and more using AT Commands.
- Designed a testing shield that for an LTE modem board using EAGLE.

EXTRA-CURRICULAR ACTIVITIES

Electromagnetics Playground, *Lab Assistant* August 2017 - Present
ECE Student Advancement Committee, *Junior Rep* September 2016 - Present
PULSE, *Media & Design Director* May 2015 - May 2017
Eta Kappa Nu, *ECE 329 Review Session Instructor* February 2017 - May 2017
Illini Formula Electric, *Low-Voltage Team Member* September 2015 - May 2016

HONORS & AWARDS

ECE 483 (Analog IC Design) Low Dropout Regulator Design - 2^{nd} Place 2017
Floyd E. Lundgren Scholarship 2017
Ellery B. Paine Outstanding Junior Award 2017
ECE Visionary Award 2017
James Scholar, Dean's List 2015-2017