Bassel Alesh

501 South Sixth St., Apt. 209, Champaign, IL 61820 · (217) 819-7610 · alesh2@illinois.edu

EDUCATION

University of Illinois at Urbana-Champaign

B.S. in Electrical Engineering, expected graduation of December 2017

GPA: 3.84/4.00

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, SystemVerilog, C, Bash, MATLAB. Software: ADS, Cadence Virtuoso, EAGLE, HFSS, PSPICE.

Lab: VNAs, Signal Generators, Oscilloscopes, Multimeters, Soldering.

EXPERIENCE

Digital Hardware Engineering Intern Qualcomm Inc.

May 2017 - August 2017

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 - Present

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

2017

- Worked with an LTE modem board purposed for IoT applications and recorded any bugs, along with tests that found them, in preparation AT&T's Shape Expo.
- 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

ECE Student Advancement Committee, Junior Rep

September 2016 - Present

PULSE, Media & Design Director

May 2015 - May 2017

Illini Formula Electric, Low-Voltage Team Member

September 2016 - May 2016

HONORS & AWARDS

ECE 483 (Analog IC Design) Low Dropout Regulator Design - 2^{nd} Place

Ellery B. Paine Outstanding Junior Award 2017

ECE Visionary Award 2017 James Scholar 2015-2017 Dean's List 2015-2017