# Bassel Alesh

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## EDUCATION

**Bachelor of Science in Electrical Engineering** **GPA: 3.86/4.00**
University of Illinois at Urbana-Champaign August 2014 - December 2017

**Relevant Coursework**

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|---|---|
| Wireless Communication Systems | Advanced Microwave Measurements |
| Analog Integrated Circuit Design | Active and Passive Microwave Circuit Design |
| Fields, Waves, and Electromagnetics | Data Structures and Algorithms |

## SKILLS

*Languages:* Python, C, C++, SystemVerilog, Bash, MATLAB.
*Software:* ADS, Cadence Virtuoso, EAGLE, HFSS, PSPICE.
*Lab:* VNAs, Spectrum Analyzers, Oscilloscopes, Hardware Prototyping and Testing.

## EXPERIENCE

**RF Systems Integration Engineer - Cellular** September 2018 - Present
*Apple Inc.* Cupertino, CA

**RF Systems, Algorithms, and Calibration Intern** January 2018 - August 2018
*Apple Inc.* Cupertino, CA

- Developing hardware and software for NFC testing automation tools and systems.

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

- Worked with the RFIC Digital Design team on testing and characterizing the layout of a transceiver's PLL module.
- Extracted the RLCk parasitics of the digital modules' nets using RaptorX.
- Created a testbench using Cadence Virtuoso and RaptorX that simulated signal delays and parasitics between different blocks on the PLL chip.

**Undergraduate Research Assistant** September 2016 - December 2017
*University of Illinois at Urbana-Champaign* Champaign, IL

- Developing a stochastic electromagnetics solver in Python by leveraging Maxwell's equations and plane wave fundamentals.

**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 Instructor* August 2017 - December 2017
PULSE, *Media & Design Director* May 2015 - May 2017
Eta Kappa Nu, *ECE 329 Review Session Instructor* February 2017 - May 2017

## 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