

Braedon Salz

Call me Brady?

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Education

Aug 2011 - **B.S. Electrical Engineering**, *University of Illinois at Urbana-Champaign*, **GPA: 3.53/4.00.**

May 2015 Dean's List Fall '11, Spring '12, James Scholar for all semesters

Relevant Coursework:

Analog Signal Processing, Digital Signal Processing, Power Electronics, Digital Hardware Systems, Wireless Comm Systems, Control Systems, Analog IC Design, Advanced Analog Design, Data Structures

Work Experience

May 2014 - **Mixed Signal IP Intern**, *Qualcomm*, San Diego, CA.

- Aug 2014 Design and prototype a digitizer circuit to improve DAC characterization time by 40x
- Write MATLAB post processing code to calculate + record metrics (HD, IMD, SNR, SFDR)
- Use ADS to design a passive 6th order anti-aliasing filter

Aug 2013 - **Undergraduate Research**, *Mixed Signal IC Design Group*, Champaign, IL.

- Current Researching the design of a high speed (10GHz) SerDes transceiver and PLL clock reference
- Developing MATLAB to circuit implementations for equalizer stages on TX and RX ends of channel
- Model system level PLL and Charge Pump using Verilog-AMS, alongside SpectreRF and Cadence Virtuoso

May 2013 - **IC Validation Intern**, *Cirrus Logic*, Austin, TX.

- Aug 2013 Worked on validating power circuitry on both the IC and System level
- Wrote automated measurement procedures using a full range of test equipment
- Created and designed features for an inhouse test development GUI using LabVIEW and Python

May 2012 - **Appliance Hardware Intern**, *IBM*, Littleton, MA.

- Aug 2012 Responsible for maintenance and failure analysis of various IBM hardware products
- Updated and cross-referenced parts with a wide variety of suppliers to minimize repair cost
- Analyzed various failed systems, with problems including :
 - Loose components requiring re-soldering
 - Probing RAM and PCI(e) lines to validate data signals
 - Resetting passwords and reformatting machines safely to ensure customer privacy

Skills

Languages	MATLAB, Verilog-AMS, Python, LabVIEW, LaTeX, Spice	Comfortable
	VHDL, C, C++, XBee, AVR-C, Javascript	Have Used
Software	Cadence Virtuoso, ADS, EagleCAD, Cadence PSpice, Altera Quartus	Comfortable
	Pro/Engineer, AVR Studio, TI Code Composer, KiCad, Mentor Graphics	Have Used
Misc	3D Printing/Modeling, PCB Design, Soldering (Through Hole, SMD)	

Projects and Activities

IEEE President Current President of IEEE Student branch for 2014-15 year. Oversee three branches, with a board of 20 and active membership of over a hundred students. Serve as a liaison between the department and the student branch. Coordinate the organization of professional conferences, technical workshops, and social events.

ENG198 ELA Created a class called "Essentials of MATLAB" offered to freshmen. Designed lecture slides, homework, and final project parameters. Independently taught and led entire class for the semester.

Party Rock Organized a team to design, create, and build a large-scale light show for Engineering Open House (EOH). Researched, tested, and implemented a method of controlling \$3,700 worth of store-bought Christmas lights, laser pointers, and LED panels via solid-state relays, servo motors, and various connected microcontrollers