

Dylan Rosser

www.dylanrosser.us

email

cell

EDUCATION

Master of Science, Electrical and Computer Engineering

Carnegie Mellon University

Pittsburgh, PA

December 2020

GPA: 3.52/4.0

- Capstone Project: 9.1 ENOB 0.2mW 50MS/s SAR ADC in 28nm CMOS
 - Design & PEX simulation using Virtuoso, Spectre, & Calibre.
 - Hand layout of comparator, CDAC, boot-strap switch, logic, and routing.
 - Tcl automation of mixed-signal design flow for pad ring, CTS, & PAR.
 - Delivery of DRC/LVS clean GDS for tape-out.
 - Package design & PCB tape-out for post-silicon validation.

Bachelor of Science, Electrical Engineering, Bachelor of Science, Music and Sound Recording

University of New Haven

West Haven, CT

May 2017

GPA: 3.78/4.0

- Presidential Scholarship, Dean's List, Tutoring Award

WORK EXPERIENCE

Microelectronic Circuits Teaching Assistant

Carnegie Mellon University

Pittsburgh, PA

August 2020 –

Present

- Designed & tested microelectronic circuits to facilitate a transition to an at-home class structure.
- Authored python testbench scripts to automate hardware verification.

Research Assistant

Carnegie Mellon University

Pittsburgh, PA

June 2020 –

August 2020

- Designed & laid out a high-speed two-stage comparator in 65nm CMOS for a computational ADC.
- Characterized post-layout performance using Spectre & Calibre.

Electrical Engineer

Cosentini Associates

New York, NY

June 2017 –

August 2019

- Designed critical power & control systems for +1M sq. ft. of high-rise infrastructure.
- Delivered short circuit, coordination, & arc flash hazard reports to an array of clients, and designed solutions to hazards discovered by the model.
- Wrote LISP & VBA scripts to automate design tasks that were implemented department wide.

GRADUATE RESEARCH EXPERIENCE

Projects:

- 9.1 ENOB 0.2mW 50MS/s SAR ADC in 28nm CMOS
- Computational ADCs for Read-Channels in 65nm CMOS
- 2.4-GHz Low Noise Amplifier in 65nm CMOS
- Colpitts VCO with 20% Tuning Range
- Double-balanced Down-conversion Mixer
- Dual Stage Op-Amp with Frequency Compensation
- Capacitive MEMS Microphone with Polysilicon Membrane

Courses:

- Analog Integrated Circuit Design
- Advanced Digital Integrated Circuit Design
- RFIC Design and Implementation
- Hardware Arithmetic for Machine Learning
- Introduction to Machine Learning for Engineers
- Principles and Engineering Applications of AI
- Microelectromechanical Systems

SKILLS

- Software: Virtuoso, Spectre, Genus, Innovus, Design Compiler, VCS, MATLAB, KiCad, SPICE, Excel
- Programming Languages/HDL: Python, Verilog, C, Bash, VBA, LISP