

Chris Yim

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EDUCATION

University of Illinois at Urbana-Champaign

Bachelor of Science, Electrical Engineering

Honors: Chancellor's Scholar, James Scholar

GPA: 3.74/4.00

Graduating, May 2017

EXPERIENCE

Shanbhag Research Group

Research Assistant

Urbana, IL

January 2016 – Present

- Implemented Algorithmic Error Cancellation (a Statistical Error Correction Scheme for Digital ICs) in a Verilog to MATLAB interface
- Currently working on circuit implementations of Radial Basis Functions for Machine Learning kernels

Ecolab

RD&E Intern

Eagan, MN

June 2016– August 2016

- Worked on current signature analysis for detection of failures in solenoid valves and peristaltic pumps
- Implemented two different cost efficient methods for detecting the amount of solid chemistry in Ecolab dispensers

Bretl Research Group

Research Assistant

Urbana, IL

July 2014 – December 2015

- Designed and constructed an LED panel controlled by an FPGA for simulating SSVEP EEG signals
- Designed a PCB which interfaced an analog front-end with a microprocessor for an EMG controlled prosthetic arm
 - Published a paper for IEEE EMBC 2016

INVOLVEMENT

IEEE Technical Advancement Group for Circuits

Leader

University of Illinois

Fall 2016 – Present

- In charge of the club with weekly lectures, workshops, and projects for 30+ students
- Built a guitar played with lasers and soft potentiometers, controlled by an Arduino

iRobotics

Control Systems Team Member

University of Illinois

Fall 2013 – Fall 2015

- Programmed, wired, and debugged various parts of the robot

PROJECTS

Binary Classifier

Fall 2015

- Completed the layout and design on a 250nm-process technology with minimum energy-delay product

Low-Dropout Voltage Regulator

Spring 2016

- Designed the circuit in cadence to meet project specifications

Microstrip Implementations on a 1.25 x 1.5 inch board

Spring 2016

- *Two Section Binomial Multisection Matching Transformer* – 2GHz center frequency, 200Ω, 40% 20dB FBW
- *Coupled Band-pass filter* – 5 GHz center frequency, 20% 3dB FBW, 3dB Insertion Loss, 2dB Pass-band Ripple
- *Rat-race Coupler* – 5GHz center frequency, 15% 3dB fractional BW, 3dB Insertion Loss, 6dB Coupling Factor

TECHNICAL SKILLS

C/C++, SystemVerilog,
MATLAB, EAGLE, cadence

Advanced Design System,
Network Analyzer, Spectrum
Analyzer

PSPICE, HSPICE, ModelSim,
HDL Designer

RELEVANT COURSEWORK

(ECE 482) Digital IC Design
(ECE 483) Analog IC Design
(ECE 464) Power Electronics
(ECE 385) Digital Systems Laboratory
(ECE 310) Digital Signal Processing

(ECE 453) Wireless Communication Systems
(ECE 457) Passive Microwave Devices
(ECE 447) Active Microwave Devices
(ECE 451) Advanced Microwave Measurements
(ECE 486) Control Systems