

Sergio Silva

1772 Hazelnut Ln. Aurora, IL 60504 | (630)-461-8716 | ssilva20@illinois.edu

EDUCATION

Bachelor of Science in Electrical Engineering
University of Illinois at Urbana-Champaign, IL

Expected December 2018
GPA: 3.83/4.00

Relevant Courses: Analog/Digital IC Design, Power Electronics, Control Systems, and Digital Systems

EXPERIENCE

Therapalz, Urbana-Champaign, IL

August 2016 - Present

- Implemented a sound driver on Arduino that uses a small speaker
- Designed a PCB board using DipTrace that integrates an AVR chip and a capacitive touch sensor

ECE Electronics Services Shop, Urbana, IL

May 2016 - Present

- Test and package IC chips and FPGAs used in lab courses
- Setup the electrical wiring for lab test benches
- Assist students with any questions regarding general electronics and coursework

PROJECTS

AC-DC Converter 100W 12V

November 2016

- Designed a power converter consisting of a full-bridge rectifier followed by a buck converter
- Tested at output current 4 A with a 100 kHz switching frequency, highest efficiency 80% and voltage ripples $\pm 1\%$
- Utilized Simulink and LTSpice to model the power converter
- Soldered the final design on a proto-board

Variable Linear Voltage Supply 15V 1A

Summer 2016

- Constructed a power supply taking its input from a wall outlet
- Consists of a transformer followed by a full-wave rectifier then a linear voltage regulator designed with the LT1637 op amp
- Made a PCB for the voltage regulator circuit using DipTrace

Frogger

November 2016

- Created a replica of the 1981 version of the video game Frogger
- Wrote testbenches and hardware modules in SystemVerilog
- Implemented the game to be displayed on a screen by VGA and controlled by a USB keyboard

Designingcircuits.com

January 2017 - Present

- Wrote the HTML and CSS source code for the website and made it mobile-friendly
- Currently writing articles on topics revolving around analog circuitry
- Use cadence virtuoso to simulate and display designs

TECHNICAL SKILLS

Cadence Virtuoso

DipTrace

SystemVerilog

C

MATLAB

LTSpice

Quartus

HTML/CSS