Sergio Silva

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EDUCATION

Bachelor of Science in Electrical Engineering Expected December 2018
University of Illinois at Urbana-Champaign, IL **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 cat sounds to be played on a small speaker using Arduino
- Designing a board that will integrate an AVR chip and a capacitive touch sensor module
- Cooperate with business and engineering students to discuss tasks and ideas

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 with a 100 kHz switching frequency, reached efficiencies of 80%, and ripples of ±1%
- Utilized Simulink and LTSpice to model the power converter
- Soldered the final design on a proto-board and took measurements

Variable Linear Voltage Supply 15V 1A Summer 2016

- Constructed a power supply taking its input from a wall outlet
- Made up of a transformer followed by a full-wave rectifier then a voltage regulator
- 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 working on writing circuit articles and projects to add to the website

TECHNICAL SKILLS

Cadence Virtuoso	DipTrace	SystemVerilog	C
MATLAB	LTSpice	Quartus	HTML/CSS