Leo Yanlong Huang

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EDUCATION

MSc. Integrated Circuit Design, Hong Kong University of Science and Technology *July 2022*
MSc. Electrical Engineering, University of Massachusetts, Lowell (top 20% in class) *May 2019*
BSc. Electrical Engineering, University of Massachusetts, Lowell *May 2017*

WORK EXPERIENCE

Hudson Light & Power Boston, MA
Electrical Engineer *Jun 2019- Jun 2020*

- Assisted the substation to upgrade the vacuum circuit breaker from air circuit breaker and upgrade the CO-9 relay to ABB REF615 relay. Be Familiar with control circuits for the relay, circuit breaker, recloser and engine.
- Programmed and set up S&C TripSaver Cutout-Mounted Recloser in order to protect the lower K type fuse.
- Be responsible for the solar rebate program and electric vehicle rebate program.
- Trained to operate SCADA, circuit breaker, and relay etc. Continually studied transformer, one-line diagram of the substation and power station and handled emergency shortage situations and circuit schematic.

May Institute - Capstone Project - Sensory room device design and fabrication Boston, MA
Electrical Engineer *May 2016-May 2017*

- Designed a device that can transfer audio and guitar sound input to vibration and sound output.
- Gained familiarity with using audio amplifier circuit, Arduino, motors, speakers, microphone and line input in our devices.
- Programmed Arduino to transfer the input signal to speaker and vibration signal depending on frequency.

Shengyi Technology CO., LTD Dongguan, China
Electrical Engineer- Summer Intern *Summer,2015*

- Monitored the manufactured chain of product Copper Clad Laminate, which is the major material in PCB board.
- Analyzed the data of the manufactured chain from different sections to reduce the error for the product.

PROJECTS

VLSI Design Project Hong Kong,China
Teamwork project *Sept 2021- Dec 2021*

- Used Cadence Design System (EDA Tool) 0.18μm process to make schematic design, layout and post-layout simulation of CMOS **inverter, 4 bits complementary full adder, NMOS Ratioed adder, binary array multiplier** and some other digital circuit.
- Achieve the goal of DRC, LVS,post-layout simulation,automatic placement and routing.

Analog Amplifier Design and Analyze Hong Kong,China
Individual project *Sept 2021- Dec 2021*

- Use HSpice to design a **low-power differential-input single-ended output amplifier** using the 0.18μm n-well CMOS technology.
- Analyze the amplifier circuit with power consumption, output swing, frequency response and simulation graph.

CPU Design,RAM Design and ALU Design Boston, MA
Individual project *Sept 2020- Feb 2021*

- Built a 8-bit CPU that includes a clock module, registers, ALU, RAM, program counter and output register.
- Designed the schematic in logic works and then built the actual circuit on a breadboard.

TECHNICAL SKILLS & LANGUAGE

Software: Cadence Design System (EDA Tool), Verilog,HSpice, Logic Works, MATLAB,Android Studio
Electrical/Testing: CMOS VLSI Design,Analog IC Design, Op-Amp, PCB Design, Oscilloscope,Troubleshooting, Signal Generator, Digital Multimeters, Power System, Microcontroller, Advance Logic Design, Transformer, Relay, Recloser, Circuit Breaker.
Language: English (Fluent); Mandarin Chinese (Native); Cantonese Chinese (Native)

LEADERSHIP

Captain, UMass Lowell Badminton Club Team (2015-2016).
Led the team to get third place in 2015 and champion in 2016.