

KRISTOPHER PERALES

10618 Double Spur Loop · +1 (512) 633-5630

kris.perales96@outlook.com · <https://www.linkedin.com/in/kristopher-perales-b24b12199/> · <https://github.com/Kris-Perales96/myProjects>

System engineer with experience in developing a system to solve a given problem statement. Proficient with C & C++ programming languages to develop electrical engineering applications, and have a background using MATLAB, Python, VHDL. My senior design project featured a heart rate, temperature, and movement monitor developed using C++. My HDL semester project features a simplified matrix engine developed using RTL oriented VHDL. My VLSI semester project features an 8-bit ALU developed using structural oriented VHDL. I want to continue to strengthen my understanding of computer programming and electrical systems design and programming.

EXPERIENCE

JUNE 2015 – AUGUST 2015

LIFEGUARD III, CITY OF AUSTIN

My responsibilities were to look after the patrons and facility that I was assigned for the day throughout Austin, Texas.

MAY 2016 – AUGUST 2016

LIFEGUARD, LIFE TIME FITNESS

My responsibilities were to keep watch over the patrons and facility in North Austin, Texas.

JUNE 2019 – CURRENT

DELIVERY DRIVER, UBER

My responsibility is to make food deliveries in Austin, Texas, during this time I have maintained a 100% approval rating from customers and merchants.

OCTOBER 2019 – CURRENT

DELIVERY DRIVER, DOORDASH

My responsibility is to make food deliveries throughout Austin, Texas, while making deliveries I have maintained a 5.0 average customer rating out of 5.0.

EDUCATION

DECEMBER 2019

B. S. ELECTRICAL ENGINEERING, TEXAS STATE UNIVERSITY

My coursework includes VLSI, HDL, DSP, Linear Control Systems

PROJECTS

- Firefighter health monitoring system: The system was a wireless health monitoring wearable device intended for use by active firefighters, the vital signs monitored were movement, temperature of the room, and heart rate. Where I developed the sensor devices heart rate, temperature, movement monitoring, and haptic feedback algorithms.
- Simple Matrix Engine: A simple matrix execution engine, where I developed and executed the goal of fetching an instruction from a created instruction memory, decode the fetched instruction, perform the operation, writeback to registers, memory, and continue until stop instruction is reached.
- Cascaded CE and CC amplifier: The project consisted of two CE amplifiers and a CC amplifier to boost a low voltage input source (mV) to a voltage sufficient for a wired speaker (5V for the project) to function.
- 8-bit ALU: The project consists of an ALU that pulls in opcodes and two input signals, and performs the indicated opcode using the two 8-bit inputs. Where the operations executed are: AND, NAND, OR, NOR, XOR, XNOR, ripple-carry adder/subtractor, complement, transfer, and a comparator.

DEVELOPMENT AND SIMULATION TOOLS

- LTSpice
- Modelsim
- MATLAB
- Multisim
- Microwind31
- Microsoft Word

PROGRAMMING LANGUAGES

- C & C++
- VHDL
- Python
- Java

ACTIVITIES

I am very passionate about training in the gym ever since I started in May 2013, where I go 6 or 7 days a week. This is my “play” time because my physical state is just as important as my mental state. Another passion of mine is helping friends and family in the gym whether it be telling them my workout routines and diet plans, or taking the time to train with them. This passion to help others extends to helping fellow classmates, family, and friends in school.