Ivan Cordoba

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Education

Bachelor of Science, Electrical and Computer Engineering
University of Arizona, Tucson, AZ 85719
Anticipated Graduation - May 2017

Technical Skills

Experience with:

- Theories of Circuits and Signals
- Working in a lab designing, building, and testing circuits
- Computer architecture and RISC processor design
- Logic Design using HLS and RTL while taking into account optimizations and tradeoffs
- FPGA Boards
- Micro-controllers/Microprocessors
- Communication Protocols (I2C, SPI, UART)
- Object-Oriented design
- Data Analysis (Graph Theory, Linked Lists)
- Web Design
- Some Android Development

Programming - Node, Python, C/C++, Java, Verilog, MIPS Assembly Language, HTML, CSS, PHP, Git
Environments - Windows/Mac OS X, Xcode, Visual Studio, Vivado, Xilinx ISE, Eclipse, Matlab, Android Studio, MPLabX, Arduino
Lab Skills - Oscilloscope, Function Generator, Multimeter, Micro-controllers, Soldering, Wire Wrapping

Projects

General Purpose Processor:

Designed and implemented a general purpose RISC processor that implements Pipelining with Forwarding and Hazard Detection. This processor was synthesized onto an FPGA board to verify it's functionality. It was tested via a Sum of Absolute Difference algorithm that was written in MIPS assembly code. Received extra credit for optimizations above the required threshold.

Line Following Car:

Used a microprocessor and an IR array along with various other components to design a small car that can follow a black line on the floor. Design recognized for completing given test track the fastest.

Senior Project/Anti-drone Device (In Progress):

Design and Build an Anti-drone device with a team of 5 other engineers.

Other Skills/Personal Achievements

- Received award for academic distinction from the College of Engineering at the University of Arizona
- Great leadership abilities: Student Government President in High School
- Spanish Speaker - Minimum Professional Proficiency