Ryan Gonzales

Software Developer | Computer Engineer

rjgonza1@uci.edu
+1-310-913-0243
github.com/rjgonza1

EDUCATION

University of California, Irvine

B.S. Computer Science and Engineering
Expected June 2018
GPA: 3.4

SKILLS

Languages

Java, C++, Python, C, System Verilog, Mathematica/MATLAB

Design/IDE Tools

Eclipse, Cadence/Mentor Graphics

Office Tools

Microsoft Word, PowerPoint, Excel, SQL Server Management Studio, Team Foundation Server

COURSEWORK

Computer Science

Data Structures
Analysis of Algorithms
Principles of Operating Systems
Compilers & Interpreters
Computer Networks

Computer Engineering

Org. of Digital Computers
Digital Signal Processing
Embedded Systems Software
Analog Circuit Analysis

HONORS

Dean's Honor List
2015 - Present

PROFESSIONAL EXPERIENCE

TechnipFMC, UCOS Products Group | Software Intern
June 2017 – Present | Irvine, CA

- Collaborated with a team of engineers to develop and assure the quality of the next generation of HMI development software
- Developed and designed the HMI and control logic for many control system applications, from subsea to surface-level systems
- Used SQL databases and ODBC data sources to bind all primitive and control objects/variables between the logic and graphical interfaces

PROJECTS

Multi-cycle ARM Processor

January 2017 – March 2017

- Worked with a team of engineers to design and simulate a pipelined ARM processor
- Verified block designs by writing test cases and viewing the waveforms in Mentor Graphics
- Synthesized the design to measure power and slack, and made improvements accordingly

"CRUX" Language Compiler and Interpreter

January 2017 – March 2017

- Built the scanner, parser, and symbol table according to fictional CRUX language specifications
- Created an abstract syntax tree (AST) to represent code structure, effectively taking care of problems like scope and type checking
- Generated MIPS assembly code by traversing the AST to build a text file of commands to run on the MIPS simulator, SPIM

Entertainment System with Kinect Sensor Motion Control

In Progress

- Worked with peers to create a system to issue TV commands through hand gestures using the Kinect and an infrared circuit
- Integrated existing Kinect libraries and relevant technologies, to record hand gestures and map them to TV commands
- Created a simple infrared circuit to work like a universal remote, in order to send command signals from the Kinect to the TV

VOLUNTEER WORK

Nativity School – Torrance, CA | Robotics Instructor
January 2014 – February 2014

- Collaborated with other volunteers to create a curriculum on basic robotics and object oriented programming using Lego Mindstorms
- Developed challenges, to facilitate application and cooperation