

José A. Rodríguez Latorre

HC-05 Box 10837
Moca, PR 00676
Tel. (787)248-3985
(787)244-8761
Email: jose.abdiel@gmail.com

Objectives:

I'm currently looking for a full time job in the area of Electrical Engineering, specifically a position relating to electronics, product engineering or test engineering.

Education:

University of Puerto Rico, Mayagüez Campus
M.S., Electrical Engineering
General GPA: 3.37/4.00
Expected Graduation Date: May 2010

University of Puerto Rico, Mayagüez Campus
B.S., Electrical Engineering
General GPA: 3.30/4.00
Graduated: May 2007, Cum Laude

Related Courses: Electrical Circuit Analysis I & II, Power Circuit Analysis, Electronics I & II, Electromagnetics I & II, Logic Circuit Analysis, Electric Machines, Analog Integrated Circuit Design, Computer System Architecture, Microprocessor Interfacing, Digital System Design, VLSI Design, Advanced VLSI Techniques, Instrumentation, Advanced Programming, Data Structures

Work Experience:

Texas Instruments, Dallas TX

May 2009 – Aug. 2009

Interned with the “*Analog Technology Development*” (ATD) group under Mike Ball’s team. My tasks included writing automation software to extract process test data and calculate the yields and defect densities across lots and wafers. Also, finding a way of mapping known defects on wafer to possible electrical failures and mapping known electrical failures to possible defects.

Research Project at University of Puerto Rico, Mayagüez PR

Jan. 2008 – Aug. 2009

Designed a test setup to measure and characterize the reverse recovery time of the intrinsic source-drain diode of LDMOS devices at wafer level. The project also required development of automation software to perform the measurements and facilitate characterization.

Texas Instruments, Dallas TX

May 2008 – Aug. 2008

Interned as a Product Engineer with the “*Analog Technology Development*” (ATD) group. My tasks included running life tests for FRAM units to determine their reliability for 1T-1C architecture, collecting and analyzing reliability data for FRAM characterization and designing a test board to perform characterization of the reverse recovery time of LDMOS devices.

Texas Instruments, Dallas TX

May 2007 – Dec. 2007

Interned as a Test Engineer with the “*Battery Monitoring Solutions, Hardware Verification Team*” (BMSHV), developing a bench test program, testing devices using the automated test equipment, improving repeatability for several tests and collecting and analyzing characterization data for several devices.

University of Puerto Rico, Mayagüez PR

Aug. 2006 – May 2007

Worked as a Teacher Assistant (TA) to Professor Manuel Jimenez for the Microprocessor Interfacing class and for Digital Electronics class. I was also in charge of the Microprocessor Interfacing Laboratory at the University of Puerto Rico, Mayaguez Campus.

University of Puerto Rico, Mayagüez PR

Jan. 2006 – May 2006

Worked as a Teacher Assistant (TA) to Professor Manuel Jimenez in charge of the Microprocessor Interfacing Laboratory at the University of Puerto Rico, Mayaguez Campus. Designed, manufactured and built several printed circuit boards (PCBs) for use in the lab with various microcontrollers.

Microsoft, Redmond WA

June 2005 – Aug. 2005

Interned as a Software Test Engineer for Microsoft with the “*Mac Business Unit*” (MacBU) group running tests, writing test cases, writing test plans, developing automation scripts and doing general Ad-hoc testing of Mac Messenger 5.0.

Microsoft, Redmond WA

May 2004 – Aug. 2004

Interned as a Software Test Engineer for Microsoft with the “*Assistance and Worldwide Services*” (AWS) group running tests, writing test cases, developing automation scripts, and doing general Ad-hoc testing for several features on Office Online.

Class Projects:

VLSI Design:

Designed a GPIB listener to receive several specific commands that would control a programmable gain and frequency band-pass filter. The logic design was made in VLSI and the standard cells were created in Cadence, by extracting the gate design Cadence then created the layout and routed the IC.

Analog Integrated Circuit Design:

Designed a 8-bit Digital to Analog Converter using binary weighted current sources. The output current was added to generate the output value which was then passed through a resistor to convert to a voltage which was then passed to the output buffering stage.

Instrumentation:

Designed a system to measure respiratory rate by adapting an air bladder used to measure blood pressure. The bladder inflation was controlled via an MSP430 microcontroller which would also read the pressure sensors output and send it to the PC after being adjusted with the designed Span & Zero configuration.

Computer System Architecture:

Designed a Simple RISC Computer emulator and compiler. Later a 16-bit Simple RISC Computer was designed and implemented in LogicWorks and tested with the output binary files generated by the compiler.

Microprocessor Interfacing:

Designed and implemented a Fish Tank maintenance system using an MSP430 microcontroller. It controlled feeding and temperature, it also communicated via USB with the computer in order to gather temperature data from the tank or setup the system.

Digital System Design:

Designed and implemented in logic works a digital system using state machines that worked as a coffee vending machine.

Skills:

- Can communicate fluently in both English and Spanish.
 - Programming Languages: C# (C Sharp), C and some Visual Basic and C++.
 - Software Skills: PSpice, Cadence, Eagle PCB, Logic Works, Active-HDL, Mat Lab, IAR Systems IDE, Word, Excel and Power Point.
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Activities/Hobbies:

- IEEE member (6 Years)
 - Presented Seminars on:
 - *The Process of Making Your Own PCB*, from use of design tools to physical preparation.
 - *Crash Course in Embedded System Design*, from programming to component interfacing and the use of the Integrated Development Environments (IDEs).
 - *The Basics of Logic Circuit Design*, mostly focusing on the use of design tools.
 - Member of Zeta Phi Beta Fraternity (3 Years)
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References:

Available upon request.