# **Errick S. Flores**

www.errickflores.com ErrickFlores@gmail.com

**Education** University of California, San Diego

Jacobs School of Engineering

Bachelor of Science in Computer Engineering Concentration in Computer Architecture

Courses

Digital Integrated Circuits Computer Security
Electromagnetism Software Engineering

Semiconductor Physics Design & Analysis of Algorithms

Computer Architecture & Lab Computer Networks

Engineering Experience

# Arsenal Processors & GreenDroid

April 2012 – Present

Fall 2010 - March 2013

greendroid.org

Graduate level research project under the direction of Prof. Steven Swanson & Prof. Michael Taylor

- Analyze software revisions to generate patch code instructions as basis for design
- Design execution unit in SystemVerilog to handle patch code to promote the longevity of customized, application-specific circuit called the C-Core

## Flodo: Custom ISA Processor

Fall 2012

- Co-developed a custom ISA to run a virtual machine for optimal performance
- Engineered general purpose processor based on custom ISA in SystemVerilog
- · Applied multi-stage pipelining and reduction of stalling conditions to improve performance
- Utilized Altera ModelSim for verification and benchmarking against a simulator coded in Java

#### **Trivial File Transfer Program**

Fall 2012

- Pair-programmed server-side and client side applications enabling 2-way file transfers in C
- Used Unix system libraries and based on the UDP protocols to achieve transfers

#### **News & Community Website (Muckraker)**

Summer 2012

- Developed dynamic website with a small team
- Based on W3C's HTML5 & CSS3 standards
- · Applied AJAX, PHP, and MySQL technologies to website capable of dynamically displaying content

#### Study Group Finder

Fall 2011

- Designed the MVC model & UML diagrams as tools for the team to construct the program
- Programmed test & verification units to validate the correctness of program

Image Processing Summer 2011

- Analyzed different Fourier Transforms to process an image without producing significant artifacts
- Formulated algorithms in MATLAB to process raw images

# Work Experience

### Best Buy - Chula Vista, CA

October 2004 - August 2011

Sales Associate: October 2004 – August 2011

- Worked with customers training them using musical instruments & recording tools
- Develop and implementing sales strategy goals to adapt to current shopping habits
- Coaching and leading team members to provide impressionable customer service
- Worked with management team to develop merchandizing techniques to increase sales

#### Samuel F.B. Morse High School - San Diego, CA

July 2003 - September 2004

Network Information Systems Technician Intern

- Directed small team to troubleshoot and maintain network services for 3000+ users
- Assisted supervisor in transitioning existing network architecture to newly constructed one
- Developed and maintained server access policies
- Worked with administration to develop defensive plan against malware attacks

**Skills** 

- Verilog/VHDL
- MATLAB
- Assembly: ARM, MIPS, x86
- PSpice, ASIC
- TCP/IP. UDP
- EDA/HDL Simulators
- Signal Processing
- C/C++
- OCaml, Python, Prolog
- Java. HTML. PHP. Perl
- UML. MVC Model
- CSMA/CD
- Semiconductor
- API Development

- Database (MySQL)
- Unix/Linux
- CDMA/WCDMATesting & Verification
- FPGA
- Image Processing
- Digital Communications

Other Languages: English United States Citizen: Yes

Eligibility to work in the United States without work authorization: Yes

Able to Obtain US Security Clearance: Yes