ANTONIO DUARTE

318 Walnut St. Denver, CO 80204 720.372.8093 antonioaduartejr@gmail.com

OBJECTIVE: Senior computer engineering student seeking internship for Summer 2015

SKILLS

- Knowledge and experiences with Linux, Mac OS X and Microsoft Windows.
- Signal and image processing algorithms and analysis with Python, MATLAB and Simulink.
- Web development with Ruby on Rails, PHP, HTML, CSS, jQuery, Javascript and SQL.
- Embedded systems programming with C, C++, Objective C, Python, Verilog and VHDL.
- Experiences with FPGA tools include Xilinx ISE, Altera Quartus SOC/Qsys and ModelSim.

EDUCATION

UNIVERSITY OF COLORADO DENVER, Denver, CO — August 2014 – Present

BS, Electrical Engineering GPA: 4.00

Currently studying in an exchange program in the USA.

RELATED COURSEWORK

Digital Hardware/Computer Organization

- Verilog design, synthesis, testbench design, FPGA prototyping, MIPS assembly/architecture.

Computer Vision

- Python, OpenCV, face detection, machine learning algorithms

High-Performance Visualization of Large-Scale Data

- Python, ParaView, CUDA, MPI, Visualization Toolkit (VTK)

EXPERIENCE

Research Assistant–Univ. of Colorado **September 2014 – Present, Professor Dan Connors Research Group**

- Design of processors and computer organization including custom instruction set architecture (ISA) accelerators.
- Hardware description in Verilog including modeling, simulating, testing and synthesis in FPGA of a pipelined RISC processor with cache memory.
- RTL Coding (with Verilog) and performance evaluation of sorting circuit.
- Program OpenCL for GPU (Graphics Processor Unit) systems – NVIDIA Tegra TK1
- Member of Intel-Cornell Cup 2015 Stratus Team
    - Developed an iOS application for wireless communication of 3D Infrared sensor for mobile phone
    - Built custom data compression framework for transmitting 3D data for SLAM construction

WAVETECH SOLUÇÕES TECNOLÓGICAS, Florianópolis, Brazil — July 2013 – July 2014

Technical Intern **Signal and Image Processing Startup**

- Developed an iOS application for signal processing simulating a hearing aid device.
- Created signal processing algorithms with MATLAB, C, C++ and Objective C for embedded systems.
- Hardware description in VHDL for hearing aids validated into FPGA.

UFSC BAJA SAE TEAM, Florianópolis, Brazil — April 2010 – June 2013

Electronics Manager **Baja SAE Series Team**

- Coordinated multiple electronics projects to ensure on time, team responsibility, project development, research, documentation, submission and approval, design, scheduling and construction.
- Main projects were developed using FPGA, PIC and Arduino devices, as well as several sensors.
- Presented projects into regional (3), national (3) and international (1) challenges.

ADDITIONAL EXPERIENCE

ELECTRICAL ENGINEERING TUTORIAL PROGRAM, Florianópolis, Brazil — April 2011 – June 2013

VOLUNTARY PHYSICS TEACHER IN PUBLIC SCHOOLS, Florianópolis, Brazil — August 2012 – December 2012

EXCHANGE PROGRAM, Cape Town, South Africa — December 2011 – March 2012

AUTOMATION & CONTROL JUNIOR COMPANY, Florianópolis, Brazil — April 2010 – April 2011