

Reinaldo Molina

M.S. SOFTWARE ENGINEERING · B.S. ELECTRICAL ENGINEER

Clearwater, FL, USA

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“Beat yesterday, nothing else.”

Summary

Test Software Developer for Navigation Inertial Systems for 4 years. Familiar with several hardware communication, and power control interfaces. Involved in all stages of the development cycle, and in technical leading activities such as estimate providing, and schedule tracking. Passionate about software development, FOSS, and all things Unix.

Work Experience

Honeywell Aerospace International

Clearwater, FL

SOFTWARE ENGINEER III

May 2015 - Present

- Developed Test Software that controls several hardware interfaces, such as: Power Supplies, MAXT Card (PXI-400-2) MIL-STD-1553 Module, DIO module, NI DMM Card (PXI NI-4071), NI Oscilloscope Card, and NI Relay Card (PXI-5114)
- Implemented graphical user interface to display data from various Inertial Navigation Systems.
- Improved automated test scripting standards, test review checklists, and test execution procedures which significantly reduced review and execution time.
- Coordinated and resolved testing and development issues that engineers and customers had in Puerto Rico, Clearwater, Albuquerque, South Korea, and New Jersey (Morristown).
- **Awards:** Honeywell Aerospace 2017 Outstanding Engineers.
- **Promotions:** Engineer III Oct. 2019.
- **Promotions:** Engineer II Aug. 2017.

Internship at BlackBerry

Ft. Lauderdale, FL

ELECTRICAL TEST ENGINEER

Fall - 2014

- Member of the handheld hardware development team with the responsibility over the design, integration, and verification of the baseband and digital subsystems for a mobile computing design
- The focus of my roll was testing communication interfaces such as I2C

Skills

Programming Languages

C and C++. Python, Java, C#, R, Shell, TeX, Vimscript.

IDEs

Visual Studio, CMake, Atmel Studio, Android Studio, Borland C++ Builder.

Linux dotfiles for

tmux, zsh, ssh, gnupg, bash, i3wm, git, (neo)vim, polybar, cmus, neomutt, pacaur.

Linux Distributions

Arch, Ubuntu, Lubuntu.

Development Boards

Odroid, BeagleBone, Raspberry Pi, CPLDs, FPGAs.

Source Control

Git, SVN.

Hardware

Digital Signal Analyzer, Oscilloscopes, DMMs, Soldering SMT parts, PCB Design.

Certifications

LabView Certified Associate Developer (2013), Six Sigma Green Belt (2015).

Languages

Fluent in English and Spanish

Engineering Experience

Final Project for Master's Program

Clearwater, FL

CAPSTONE EXPERIENCE

Summer - 2019

- Team Effort to develop web application called Patient Portal System
- Functionality of the application included: Ability to register, make appointments, make todo list items, chat with doctor, view health records, prescriptions, and pay bills.
- **Technologies:** Java, Python, Selenium, Gradle, Spring Boot, Junit, Amazon Web Services: EC2, SES, Route53

Design of an Autonomous QuadCopter

Gainesville, FL

SENIOR DESIGN COURSE

Spring - 2015

- Design a QuadCopter with the purpose of surveying a specific GPS area with aid of a camera
- **Technologies:** C++, CMake, ROS, Odroid, Embedded Software, PCB Design, OpenCV, Ubuntu, ATxmega

Precision Agriculture Research Lab

Gainesville, FL

RESEARCH STUDENT

Summer - 2014

- Member of a research group working on the development of an autonomous system which objective is to recognize and eliminate weeds from within crop fields.
- *Technologies: C++, BeagleBone, Embedded Software, OpenCV, Ubuntu*

T.A. for the Digital Logic Lectures

Gainesville, FL

TEACHER ASSISTANT

Summer - 2014

- Some of the responsibilities included teaching the laboratory section, grading homework, quizzes, exams and laboratories, and providing office hours.

Design of an Autonomous Rover Vehicle

Gainesville, FL

INTELLIGENT MACHINE DESIGN LAB COURSE

Fall - 2013

- Construction and design of a vehicle capable of doing facial recognition, color recognition, and obstacle avoidance.
- Selected as one of the top 3 projects of the class. For more information please go to (<https://sites.google.com/site/thepatrollingandroid/home>).
- *Technologies: C++, CMake, ROS, Odroid, Embedded Software, OpenCV, Ubuntu, ATxmega*

Education

Pennsylvania State University

World Campus

M.S. IN SOFTWARE ENGINEERING

Aug. 2017 - Aug 2019

University of Florida

Gainesville, FL

B.S. IN ELECTRICAL ENGINEERING

Jan. 2012 - May 2015

Broward College

Ft. Lauderdale, FL

A.A. IN ENGINEERING

Jan. 2010 - Dec. 2011

- Graduated with the Highest Honors

FOSS (Free Open Source Software)

nvimpp

Roll: Author & Maintener

- Multiplatform Neovim msgpack-rpc C++ Library
- <https://github.com/tricktux/rnvim>
- *Technologies: C++, CMake, msgpack, msgpack-rpc*

dotfiles

Roll: Author & Maintener

- Collection of dotfiles for over 15 different Linux, and Windows applications
- <https://github.com/tricktux/dotfiles>

molinamail.com

Roll: Author & Maintener

- Self host server for: email, cloud storage, calendar, and contacts
- Feel free to email me at: *me at molinamail dot com*
- <https://box.molinamail.com/email>
- *Technologies: DigitalOcean, AWS-Route53, Mail-In-A-Box, fail2ban, ufw*