Reinaldo **Molina**

M.S. Software Engineering · B.S. Electrical Engineer

Clearwater, FL, USA

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Summary

With 5 years of software development experience. I have worked on desktop applications for Window's and GNU/Linux's. I have strong knowledge about C++ and objective oriented analyze and design. 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*

- Develop C++ code for complex in house testing framework using the standard library containers and threading model
- Developed Test Software that controlls 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++. Python, Java, C#, UML, TeX, Vimscript.
IDEs	Visual Studio, CMake, Atmel Studio, Android Studio, Borland C++ Builder.
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

FOSS (Free Open Source Software)

file-audit-system

Linux file system monitoring and auditing application   *Roll: Author & Maintener*

- File monitoring software that will log file access to configured directories on the system.
- https://github.com/tricktux/file-audit-system
- *Technologies: C++-11, CMake, Linux Auditing System*

nvimpp

Multiplatform Neovim msgpack-rpc C++ Library   *Roll: Author & Maintener*

- Communicates with neovim's RPC server over the stdin and stdout
- Usually used to create enhanced Graphical User Interfaces for neovim
- Currently only supports Linux OS
- https://github.com/tricktux/rnvim
- *Technologies: C++-14, CMake, msgpack, msgpack-rpc, gtest*

dotfiles

Collection of dotfiles for over 15 different Linux, and Windows applications *Roll: Author & Maintener*

- https://github.com/tricktux/dotfiles
- *Technologies: tmux, zsh, ssh, gnupg, bash, i3wm, git, (neo)vim, polybar, cmus, neomutt, pacaur.*

molinamail.com

Self hosted server for: email, cloud storage, calendar, and contacts *Roll: Author & Maintener*

- 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*

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