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 multiple Windows and GNU/Linuxs applications. I have strong knowledge on C++ and Object Oriented analysis and design. Involved in all stages of the development cycle, and in technical leading activities such as work estimates and schedules. I am a passionate software engineer with special interest in Free Open Source Software, and all things Linux.

Work Experience

Honeywell Aerospace International
SOFTWARE ENGINEER III

Clearwater, FL

May 2015 - Present

- Develop C++ code for complex in house testing framework using standard library containers and multithreading models
- NOTE: go back. Developed Test Software that controlls several hardware interfaces, such as: Power Supplies, MAXT Card MIL-STD-1553 Module, DIO module, and various National Instruments analysis cards.
- Implemented graphical user interface to display data from various Inertial Navigation Systems.
- Improved automated test scripting standards, test review checklists, and test execution procedures, significantly reducing review and execution time.
- Coordinated and resolved testing and development issues that engineers and customers had at multiple locations (South Korea, PR, FL, NM, NJ).
- *Awards:* Honeywell Aerospace 2017 Outstanding Engineers.
- *Promotions:* Engineer III Oct. 2019.
- *Promotions:* Engineer II Aug. 2017.

Internship at BlackBerry
ELECTRICAL TEST ENGINEER

Ft. Lauderdale, FL

Fall - 2014

- Member of the handheld hardware development team responsible for the design, integration, and verification of the baseband and digital subsystems for a mobile computing design
- Directly responsible for testing all communication interfaces

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

Free Open Source Software Development

file-audit-system
LINUX FILE SYSTEM MONITORING AND AUDITING APPLICATION

Roll: Author & Maintener

- File monitoring software that logs 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 stdin and stdout
- Used to create enhanced Graphical User Interfaces for neovim
- 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*

Academic Engineering Experience

Final Project for Master's Program   *Clearwater, FL*

Capstone Experience   *Summer - 2019*

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

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 whose objective is to recognize and eliminate weeds from crop fields.
- *Technologies: C++, BeagleBone, Embedded Software, OpenCV, Ubuntu*

T.A. for Digital Logic Lectures   *Gainesville, FL*

Teacher Assistant   *Summer - 2014*

- Responsibilities included teaching the laboratory section, grading homework, quizzes, exams, 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.
- 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