Reinaldo **Molina**

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

Clearwater, FL, USA

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Summary

With over 7 years of software development experience, I have worked on multiple Windows and Linux 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 Unix related technologies.

Work Experience

Honeywell Aerospace International
Clearwater, FL

SENIOR SOFTWARE ENGINEER
May 2015 - Present

- Maintain and enhance a C++ based testing framework.
- This framework controls several hardware interfaces, such as: Power Supplies, DIO modules, relays, oscilloscopes, 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, Puerto Rico, FL, NM, NJ).
- *Awards:* Honeywell Aerospace 2017 Outstanding Engineers.

BlackBerry
Ft. Lauderdale, FL

ELECTRICAL TEST INTERN
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.
Languages	Fluent in English and Spanish.

Certifications

Machine Learning Foundations: A Case Study Approach
Online

COURSERA
May 2022

- Credential ID: 2PNY97HX4AAK

M.S. in Software Engineering
World Campus

PENNSYLVANIA STATE UNIVERSITY
Aug. 2017 - Aug 2019

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*

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

B.S. in Electrical Engineering   *Gainesville, FL*

University of Florida   *Jan. 2012 - May 2015*