

# 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 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

SOFTWARE ENGINEER III

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.
- **Promotions:** Engineer III Oct. 2019.
- **Promotions:** Engineer II Aug. 2017.

### 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

<b>Programming Languages</b>	C++, Python, Java, C#, UML, TeX, Vimscript.
<b>IDEs</b>	Visual Studio, CMake, Atmel Studio, Android Studio, Borland C++ Builder.
<b>Linux Distributions</b>	Arch, Ubuntu, Lubuntu.
<b>Development Boards</b>	Odroid, BeagleBone, Raspberry Pi, CPLDs, FPGAs.
<b>Certifications</b>	LabView Certified Associate Developer (2013), Six Sigma Green Belt (2015).
<b>Languages</b>	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

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## 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

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## 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