MANUEL GONZALEZ

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SUMMARY

A Software Engineer with over 7 years of professional programming experience, mainly in user interface development, simulators, and computer graphics.

SKILLS

Programming Languages: Ada, C, C++, C#, Python, Java, JavaScript
Operating Systems: Microsoft Windows, Ubuntu, Red Hat, CentOS
Protocols: HTTP, UDP, MODBUS, CIGI
Tools & Technologies: Microsoft Visual Studio, GTK, Bash Scripting, RTI DDS, Unity, Unreal, Git, Gitlab
Others: Multithreading, Socket Programming, Serial Programming, Computer Graphics

WORK EXPERIENCE

Software Engineer Senior
Lockheed Martin *February 2017 - Present*

Developed and maintained ground training simulator software. With several multimillion-dollar products that met government testing standards and were successfully fielded.

- Developed simulation applications using the Unreal Engine with an emphasis on multiple instances coordinating via network communication to simulate different points-of-view within a vehicle
- Developed simulation applications using the Unity Engine interfacing with proprietary libraries
- Major contributor developing tools to transition from RCS (Revision Control System) to Git, which included a custom solution using Git subtrees to manage a monolithic repo
- Contributed to the transition from local build systems to cloud solutions (Jenkins, Gilab)
- Developed and maintained applications that use the DDS specification for network communication
- Developed and maintained applications that use the CIGI protocol for network communication

EDUCATION

University of Central Florida *Graduation date:* Dec 2016
B.Sc. with Honors in Computer Science *GPA:* **3.940**
Honors: *magna cum laude*

PROJECTS

3DCytoflow *September 2015 – April 2016*

- Team Size: 3
- Role: Designer, Developer, Tester
- Technologies used: ASP.NET MVC 6, Bootstrap, JavaScript, T-SQL, Git, Ubuntu Linux, Three.js

Our system provided online visualization of flow cytometry data using Cloud Computing, with wide applications in medicine – specifically cancer treatment. It implemented an algorithm researched at the University of Central Florida that simplified high-dimensional datasets into three dimensions.

Remote Thermal Therapies (Android App Prototype) *January 2015 – June 2015*

- Role: Designer, Developer, Tester
- Technologies used: Android SDK, Eclipse, Bluetooth, MODBUS, SQLite

This Android application allowed online monitoring and prescription of thermotherapies, removing the need of human oversight during therapy sessions. The application added a touch user interface, automatic thermotherapy execution and internet connection to a digital water temperature controller.