

# Harold Rodriguez

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**Objective** Motivated graduate with extensive, diverse background seeking challenging position at cutting-edge research institution.

**Education** DEGREES:

**Bachelor of Science in Physics**, University of Florida. College of Liberal Arts & Sciences.  
**Bachelor of Science in Computer Science**, University of Florida. CLAS.

Graduated Cum Laude: May 2008  
Bright Futures 100% Tuition Scholar  
Hispanic College Fund Scholar

COMPUTER BACKGROUND:

Programming, intelligent systems, data analysis, VR, enterprise web dev, networking

MATH BACKGROUND:

Numerical analysis, linear algebra, calculus 3, differential equations

**Research Experience** RESEARCH ASSOCIATE August 2005 – October 2008  
Mentor: Dr. Ben Lok Virtual Experiences Research Group Gainesville, FL

Created my own audio DSP software with integrated OpenGL data visualization.  
Published paper on analyzing conversational speech using DSP and 3D data vis, accepted into Intelligent Virtual Agents 2008 and presented in Tokyo, Japan.  
Developed emotion detector proof-of-concept with fully-detailed internal research paper.  
Programmed AI/3D graphics for, and administered, VR psychological study, n=25.  
Created medical and anatomical geometry widely used by other researchers.  
Assisted group members in conducting numerous interdisciplinary lab studies.  
Research papers/details: <http://www.planetharold.com>

SIMULATIONS PROGRAMMER August 2006 – July 2007  
Mentor: Dr. Guido Mueller LISA Space Interferometer Gainesville, FL

Programmed DAQ boards/FPGAs in C for data delay simulations.  
Designed integrated-logic blocks for more accurate data processing of phasemeter.  
Helped Ph.D. students with experiments.

**Industry Experience** SOFTWARE DEVELOPER/SYSTEMS ANALYST January 2009 – Present  
Business Software Dev. LMR International, Inc. Gainesville, FL

Created “tie-in” softwares, such as an online contact relations management portal.  
Overhauled web infrastructure, including dynamic content generation.

SOFTWARE DEVELOPER June 2008 – January 2009  
Music Service/Web 2.0 Startup GrooveShark.com Gainesville, FL

Developed API for displaying large company data sets on Google Maps.  
PHP/jQuery backend code for MoneyShark, marketing campaign visualizer.

**Technical Skills** Fluent in C, C++ (Certified), Java, MFC, MATLAB  
Fluent in dynamic scripting (PHP/jQuery/Ajax/XHTML/SQL/Smarty)  
3D graphics programming (OpenGL, OGRE, Maya)  
Digital Signal Processing (DSP) programming  
Windows network administration  
Fluent in English, Spanish, and Italian

**Activities** Research, playing musical instruments, salsa dancing, rock climbing

**References** Dr. Benjamin Lok, Research Mentor. (352) 392-1492 lok@cise.ufl.edu  
Dr. Guido Mueller, Research Mentor. (352) 392-8521 mueller@phys.ufl.edu  
Dr. Laura Ellis, Music Professor. (352) 273-3181 lrellis@ufl.edu