

# SERGIO MORALES

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## EDUCATION

UNIVERSITY OF CALIFORNIA, RIVERSIDE  
Bachelor of Science Degree, **Computer Engineering**  
Chancellor's Honor List      Major GPA: 3.4/4.0

Riverside, CA  
Graduated, June 2015  
Overall GPA: 3.2/4.0

## SOFTWARE & TECHNICAL SKILLS

C (3+ years in Embedded Sys.)	C++ (3+ year experience)	Java (Android Development)
Python (Networks/Algorithms)	HTML/CSS & JavaScript (3+ years)	VHDL/Verilog (FPGAs)
Objective C (iOS Development)	Assembly (6502/MIPS Programs)	GNU/Linux Shell
Breadboard/PCB Prototyping	Circuit Analysis	MATLAB & Simulink
Fluent in Spanish and English		

## PROFESSIONAL EXPERIENCE

### Algorithm/Software Engineer – July 2015– Present

Powertrain Integration Software, Controls, & Calibration – General Motors

Responsible for developing software and algorithms that control multiple actuators in a way that optimizes fuel economy, emissions, and drivability. Specific responsibility includes developing software for powertrain integration systems such as cooling fans, through use cases and requirements for in-vehicle embedded software. Tools utilized included Matlab, Simulink, and ANSI C development environments for development of robust control features.

### IT Student Worker – June 2013– June 2015

Department of Information Technology – UC Riverside Extension

Assisted the department in implementing automation of software through scripting in PowerShell and aided in improving workflow of staff by troubleshooting through helpdesk tickets. Responsibilities included hardware setup and installation, with network routing and cable management for labs.

## PROJECTS

### Integrated Appliance System (IAS)      September 2013 – June 2015

Second place awarded in SMI's Design & Manufacturing Contest, and winner of UCR's Sustainability Fellowship Award. In charge of implementing ATmega microcontrollers and circuits that utilize feedback control to actuate the appliances in a way that allows the end user of the IAS to monitor the temperature, humidity, and energy usage.

### Nintendo Entertainment System FPGA Emulator      Summer Study Abroad 2014 – Lausanne, Switzerland

Implemented an NMOS 6502 microprocessor in C; using Altera's Nios II processor IP core. Worked in a team of five and to establish a stable version of the project that rendered images using Verilog.

### UCR Chatline – An iOS Social Media App for UCR      September 2014 – December 2014

Created an iOS phone app that allows the users to group chat, video call, post status updates, and add users as friends.

## AFFILIATIONS

### Society of Hispanic Professional Engineers (SHPE)      September 2012 – Present

Webmaster & Internal Affairs

Took charge of establishing and maintaining connections with any organizations and alumni within UCR. Also lead a team of members in providing a website for the organization, hosted on the school's servers.

**Institute of Electrical & Electronics Engineers (IEEE)** – General Member

**Association for Computing Machinery (ACM)** – General Member

## AWARDS & CERTIFICATIONS

Xerox Scholarship 2013 Recipient

Affiliates of UCR Scholarship 2014 Recipient

UCR Summer Study Abroad Scholarship 2014 Recipient

Startup Engineering Certification (Coursera, Inc)