**Sergio Morales**

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# **EDUCATION**

UNIVERSITY OF CALIFORNIA, RIVERSIDE Riverside, CA

Bachelor of Science Degree, Computer Engineering Graduated, June 2015

Chancellor’s Honor List Major GPA: 3.4/4.0 Overall GPA: 3.2/4.0

**SOFTWARE & TECHNICAL SKILLS**

C (5 years in Embedded Sys.) C++ (8 years) Java (Android Development)

Python (Networks/Algorithms) HTML/CSS & JavaScript 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 – Thermo Fluid & Chemical Software** July 2015– Present

Vehicle Motion Embedded Controls– General Motors

Develop software that control multiple actuators in a way that optimizes fuel economy, emissions, and drivability. Features worked on include fuel adjustment, ethanol compensation, cooling fans, vehicle theft deterrent (immobilizer), and fuel level sensing. Software written in C, as well as through modeling in Simulink/Matlab. Responsibilities also include requirement analysis, bench testing, unit testing, and version control through Git. Based in Milford, MI, but work remotely from San Diego, CA.

**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 UCR Summer Study Abroad Scholarship 2014 Recipient

Affiliates of UCR Scholarship 2014 Recipient .Startup Engineering Certification (Coursera, Inc)