JOSE SOTELO

Los Angeles, CA | U.S. Citizen | Ability to obtain security clearance

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OBJECTIVE

Computer Engineering graduate seeking a challenging position in implementing digital and embedded system applications, hardware/software design, computer architecture, prototyping, and software verification of products.

EDUCATION

California State University, Long Beach
2015–2019 **|** Bachelor of Science in Computer Engineer Awards: Dean's Honors List – Fall 2018

2008 – 2015 **|** East Los Angeles College Transfer Student

WORK EXPERIENCE

Boeing R&T Software Engineering Contractor - *Long Beach, CA | June 2018 – Present*

- Software Engineer responsible for using the Robot Operating System (ROS) for a custom robot designed to perform sealing operations in a confined spaced. Tasked to develop robotic motion planning, homing software, documentation, and a custom GUI using the Qt IDE. Other responsibilities include in creating a concept of operations simulation (ConOps) for Fanuc robots using Unity3D.

7Generation Games Software Developer - *Santa Monica, CA | April 2016 – January 2018*

- Software developer responsible for documenting and developing educational video games in Unity3D, HTML5, CSS and JavaScript.

SKILLS

- **Programming/Scripting Languages**: C++, C, C#, Java, Python, Verilog, Assembly, MATLAB, and JavaScript.
- **Frameworks and Tools:** Linux, Vivado, Kiel, Qt, Visual Studio, Multisim, ROS, ARM Cortex-M4, Zynq-7010 development board, oscilloscope, logic analyzer, Microsoft Office/Excel, NX Siemens, soldering, and Unity5.x-2018.3.
- **Source Control/Issue Tracker:** Git, SVN, ClearCase, and Jira.

PROJECTS

Robot Operating System Autonomous Car – Fall 2018

- Contributed in designing an autonomous robot car in a team of 4. Responsible for interfacing the Raspberry Pi 3's and laptop using ROS in a Linux environment. The project consists in using C++, SLAM, two Raspberry Pi 3's, a LiDAR, cameras, encoders, a proportional–integral–derivative controller, and an Xbox 360 controller to manually operate the robot.

32-bit MIPS Processor – Spring 2018

- Accomplished in designing, modifying, and verifying a 32-bit single cycle RISC processor by adding a stack-based architecture that performs basic instructions using Verilog.

Universal Asynchronous Receiver Transmitter – Spring 2018

- Successfully designed and documented a full duplex serial communication protocol using Verilog, Assembly, and a Nexys 4 Artix-7 FPGA. The SOC was tested and verified according to require specifications by having a user interact with the design via a serial terminal and programming a 16-bit embedded microprocessor.

Bluetooth Robot Car and IR Receiver and Transmitter – Spring 2018

- Excelled in developing, debugging, and testing a PWM-driven robot car using C, ARM Cortex-M4 microcontroller, a Bluetooth chip, and a custom infrared communication protocol. The IR protocol signal was developed, tested, and verified using an oscilloscope and logic analyzer to observe the correct transmitted and received signal.

Wall Following Robot Car – Fall 2017

- Successfully designed, debugged, and tested a wall following robot car using an ARM Cortex-M4 microcontroller and C. The project consists of interfacing GPIOs, setting up timers, interrupts, ADC, SSI, and PWM to be able to logically control switches, LEDs, LCD, motors, and infrared proximity sensors.