# Johan Guzman

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## **EDUCATION**

Bachelor's Degree in **Computer Science** | Current GPA: **3.80** University of California, Riverside (UCR), Riverside, CA

**Expected June 2021** 

#### **SKILLS**

• **Programming Languages**: C++, C#, Java, and Python

• Platforms: Windows and Linux

• Language: Bilingual, English and Spanish

## WORK EXPERIENCE

Elementary School Tutor, Myra Linn Elementary School, Riverside, CA

January 2019 - May 2019

- Tutored 30 elementary schoolers on math and reading by maintaining a safe and interactive learning environment
- Improved the reading comprehension of students with low reading levels by effectively inculcating reading habits
- Assisted the STEM after school team by teaching twenty students basic programming skills using Python

#### **PROJECTS**

Rshell, CS 100 Software Construction Project

- Worked with a class partner on the development of a C++ program that simulated the functionality of a command shell by applying object-oriented programming principles and software design patterns
- Achieved the proper functionality of the program by parsing and analyzing user linux commands, decomposing the commands into appropriate objects, and executing system calls.
- Verified the functionality of the program by performing unit testing on individual components of the program using Google Test Framework for C++ and integration testing on the whole system using bash I/O redirection.

Metal Finder Robot, CS/EE 120B Intro to Embedded Systems Final Project

- Developed a motorized, four-wheel robot capable to travel and detect small metal objects on its way by using an ATMega 1284 microcontroller to control the signals coming from its DC motors, ultrasonic sensor, and inductive proximity sensor
- Implemented the functionality of the robot using Concurrent, synchronous state machines in order to make it behave intelligibly after detecting a metal object or a potential obstacle in front of it.

# VOLUNTEER EXPERIENCE

Community Service Volunteer, Habitat for Humanity, Riverside, CA

January 2015 - June 2017

• Improved the housing conditions of low-income communities in Riverside by operating landscaping work and painting of walls of houses in poor conditions with the help of other twenty volunteers

#### HACKATHONS

RoseHack, Cameo Card Game

February 2019

- Worked with a team of 4 students in the development of a card game using Android Studio
- Designed the user interface of the game using Android Studio tools and XML files manipulations

**Biohack**, TherapE Screening

May 2019

- Worked with a team of 4 students in the development of a mobile app, using Unity, to help Therapists gather information from their patients before the start of their appointments
- Developed the functionality of the app that sent the patients' inputted answers to a pre-created Google spreadsheet

# HONORS & AWARDS

• UCR Dean's Honor List (3.5 GPA or better): Freshman year