ANDREW CRUZ

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EDUCATION

Bachelor of Science in Computer Science   September 2015 - June 2019
University of California, Riverside   **3.3/4.0 GPA**

TECHNICAL BACKGROUND

Programming	C/C++, C#, Java, MatLab, HTML, CSS, JavaScript, React Native.
Coursework	Advanced Data Structures and Algorithms, Machine Learning, Virtual Reality, Computer Graphics, Computational Geometry, Operating Systems, Numerical Analysis.

PROJECTS

Ball Hero - Demo   Unity Game
Third Person RPG game.

· Led weekly Scrum meetings as Scrum Master.
· Worked on in world player and enemy interactions such as hit detection and enemy attack mechanism.
· Implemented in game UI such as game menus and health bar using coroutines and class variables.
· Designed levels with user immersion and story fluidity in mind.

Boundless Pac-Man - Demo   Embedded System
Pac-Man inspired game on Atmega1248 Microcontroller.

· Used concurrent state machine to control 8x8 RGB Led matrix and controller.
· Created scheduler and used scheduler to control input and game play logic.
· Used Atmega ADC pins for joystick input and for creation of pseudorandom numbers using photoresistor.

Carnival Game - GitHub   Virtual Reality Game
VR Carnival Game experience.

· Used Oculus Rift First Person Controller to implement character interactions in world.
· Designed world, ball toss booth, and trophy case using Unity.
· Created in game logic that was core logic for each booth using coroutines, colliders, and user input from Oculus.

R'Park - Demo   Mobile App
Parking App for UCR Students.

· Used Google Maps API to implement closest parking lot feature.
· Implemented navigation bar and navigation page switching.
· Used Android Job Scheduler to run parsing on fixed interval.
· Implemented reading and writing of Firebase database.

WORK EXPERIENCE

AVID STEM Tutor   May 2016 - June 2017
Moreno Valley Unified School District

· Mentored students in STEM subjects primarily mathematics.
· Created teaching plans with teachers to help further student understanding.
· Lead bi-weekly class sessions for students falling behind in STEM subject fields.

Web Developer Assistant - https://faculty.ucr.edu/ emmaa/   February 2016 - April 2016
Aronson Laboratory at UC Riverside

· Designed and consulted with professor and lead about the layout and functionality of website.
· Used HTML and CSS in Dreamweaver to create skeleton of website.
· Created home slide show, publications, lab members, and teaching web pages.
· Delivered website in tight 2 month deadline.