(305) 495-8843 cparreno@ufl.edu https://c-zar.github.io

### **Education**

#### University of Florida - Gainesville, FL 32611

- 2017- Present (Graduation Date May 2021)
- Bachelor of Science in Computer Science with an Entrepreneurship Minor
- GPA: 4.00 | Benacquisto Scholar

Relevant coursework: Programming Fundamentals I-II, Information and Database Systems, Software Engineering, Operating Systems, Computational Linear Algebra, Data Structures and Algorithms, Applications of Discrete Structures, Calculus I-III, Differential Equations.

### **Skills**

C • C++ • C# • JavaScript • HTML/CSS • Java • Python • NodeJS • AngularJS • Express • VDHL • QT • OpenGL • GIT • Linux/Command Line • SQL/SQLite • Unity • Photoshop

## **Experience**

# University of Florida CISE Academic Tutoring Center

(Present)

 Tutor undergraduate students with Programming fundamentals, Data Structures and Algorithms, and Software Engineering.

#### 2019 Global Game Jam

• Developed a C# game which implemented interactive environments, field of view mechanics, and behavior-tree based Al's in a team setting.

# **Broward College Physics Department**

• Led a team of student peers in constructing and testing a 3D printer for the Physics Department.

## **Projects**

## E-Commerce Web Scraper - NodeJS, ExpressJS, AngularJS, Bootstrap, CSS, HTML

- Constructed a backend web server, with Nodejs, to continuously scrape data from Shoppy Ecommerce Ltd.
- Incorporated a front-end user interface, with Angular JS and Material Design, to organize and serve the data.

# GRIM (Game) – C#, Unity

- Worked with team to create a multilevel game with a complete storyline, enemy AI, and final boss battle using the Unity 3D engine.
- Implemented player-environment interactions and coordinated level design to improve user experience.

#### OpenGL Ray-tracer with GUI – C++, Qt, OpenGL

- Designed an application capable of outputting raytraced images using various shading algorithms and different lighting effects.
- Created an interactive window which allows users to easily create new scenes and add different objects and lights with real time OpenGL rendering

# Mentor Matching Web-app – NodeJS, MongoDB, ExpressJS, AngularJS, MatrialJS, CSS, HTML

 Contributed as a full-stack developer for a mentorship matching web application, focusing primarily on the frontend CSS styling with Material Design Lite and back end Express routing

### Java Memory Manager – C, JAVA

- Designed a dynamic memory manager capable of allocating and deallocating blocks of memory using Linux syscall.
- Attached the functions to an Android UI and used a virtual machine to run the program.

#### Linux Syscall - C

• Implemented a kernel syscall for an arm64 based Linux system, which assigned processes a security level, and allowed processes to raise or lower the level of other processes.

# Database Management Application – C++, Qt, SQLite

• Designed a user interface in Qt which allowed users to update and query a SQL database of flower species.