Justin Almendral

Software Engineer

CONTACT.

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EDUCATION.

Northeastern University
May 2024 • GPA: 3.91
B.S. Computer Engineering

Minors:
• Robotics
• Game Design

Relevant Coursework:
• Object-Oriented Design
• Rapid Idea Prototyping
• Fundamentals of Engineering Algorithms

SKILLS & INTERESTS.

Game Engines •
Unity, Godot, Ren'Py

Programming Languages •
Python, C++, MATLAB, ADA, Java

Engineering Software •
Fusion360, OnShape, Solidworks, AutoCAD, Intel Quartus Prime

Other Software •
Ableton Live 10, Aseprite

Interests •
Music Composition, 3D Printing, Hiking, Pixel Art

PROJECTS.

Lethal Position, Programmer *July 2021*
• Alternative reality adventure-puzzle game developed in Unity for the android platform using ARFoundation
• Worked alongside composer to use FMOD for sound and music implementation
•Designed scripts for ordered interactions, code locks, and draggable elements
• Implemented 3D assets into Unity engine with tap interactability

Habit of Force, Programmer *Oct 2020 - May 2021*
• Designed a fill-in-the-blank poetry scene that tracked user selection to determine future plot progression
• Developed Dialogue System for mecha turn-based strategy game created in Unity
• Implemented Dialogue Storage System using Scriptable Objects and Yarn Spinner that compartmentalized all dialogue processing and triggers for each scene
• Created Dialogue Trigger System that checked and processed dialogue for 3 different occurences

Telegram JSON Text Analyzer, Creator *Jul 2020 - Aug 2020*
• Developed a program in Python that provides users statistical information from JSON files exported from Telegram
• Incorporated tools from the gensim and nltk libraries to search through texts and return related words
• Implemented function that uses JSON file text data to create bar graphs showing frequency of messages by user and time
• Created graphical user interface using tkinter library to allow user to provide paths to .JSON and .txt files for analysis

EXPERIENCE.

MatrixSpace, Intern • Burlington, MA *Sep 2021 - Dec 2021*
•Trained neural networks using Pytorch in Jupyter Notebooks for the recognition of vehicles and people in 360-camera images
• Implemented depth and image detection analysis networks to approximate the average depth of drones and people detected in 360-camera images
• Converted the Monodepth2 Neural Network into ONNX and TensorRT files for the efficient running of depth and detection analysis on the embedded Jetson Nano platform

General Dynamics Electric Boat, Co-op • New London, CT *Feb 2021 - Jun 2021*
• Managed and documented over 300 unit test requirements for embedded software using IBM Rational DOORS
• Designed plans for and conducted 10 unit tests using VectorCast and IBM Rational Change for embedded software programmed in ADA
• Provided data for determining OS by analyzing network performance samples between Linux and VXWorks using KernelShark and Wind River Workbench

Grotto Engineering, Engineering Intern • Cranford, NJ *Jan 2019 - Jun 2019*
• Conducted research and compiled materials regarding the construction of swales for company presentations to the Clark municipality
• Calculated street and plot dimensions in over 15 properties using Civil3D and AutoCAD for planned drainage projects
• Extrapolated data from past quotes to create formulas for pricing of road improvements