

Justin Almendral

Programmer



CONTACT.

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EDUCATION.

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

Minors:

- Robotics
- Game Design

Relevant Coursework:

- Discrete Structures
- Foundations of Game Design
- Fundamentals of Engineering Algorithms



SKILLS & INTERESTS.

Game Engines •

Unity, Godot, Ren'Py

Programming Languages •

Python, C++,
MATLAB, ADA

Engineering Software •

Fusion360, OnShape,
Solidworks, AutoCAD,
Intel Quartus Prime

Other Software•

Ableton Live 10, Aseprite

Interests

Music Composition, 3D
Printing, Hiking

EXPERIENCE.

- **MatrixSpace, Intern • Burlington, MA** *Sep 2021 - Present*
 - Training neural networks using Pytorch in Jupyter Notebooks for the recognition of vehicles and people in 360 images
 - Implemented depth and image detection analysis to approximate the average depth of drones and people detected in 360 images
 - Deploying neural networks using TensorRT onto the embedded Jetson Nano platform for the efficient running of depth and detection analysis
- **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

PROJECTS.

- **Habit of Force, Programmer** *Oct 2020 - Present*
 - Developing Dialogue System for mecha turn-based strategy game created in Unity
 - Implemented Dialogue Storage System using Scriptable Objects and Yarn Spinner that allow for the compartmentalization of dialogue for individual scenes
 - Created Dialogue Trigger System that can check and process dialogue for 3 different occurrences
 - Designing fill-in-the-blank poetry scene that tracks user selection to determine future plot progression
- **Refraction, Artist & Programmer** *Mar 2021*
 - Developed Precision bouncing platformer using the Godot game engine under a 3 hour time limit
 - Ranked 3rd Overall in TriJam #113 among 25 entries
 - Designed and created all art assets using Aseprite, working with composer to ensure all assets and level design fit overall aesthetic
- **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