Jerold Lodge

Jerold.Lodge@gmail.com   linkedin.com/in/jerold-lodge-b6679a200   jeroldlodge.com

EDUCATION

University of Central Florida, Orlando, FL

Bachelor of Science in Computer Science, May 2021

- Courses: Web/Software Development, Matrix and Linear Algebra, Calculus, Malware Analysis, High Performance Computer
- Computer Science GPA: 3.9

SKILLS

Languages:	Java, Javascript, C, C++, Python, Dart, Html, Css
Technologies:	React, Vue, Git, Flutter, Unreal Engine, Open AI, wxWidgets

PROGRAMMING EXPERIENCE

Everglades AI Wargame, *Lockheed Martin*

Project Manager

- **Lead a team** to develop a game to analyze reinforcement learning AI drones. Program is used internally to learn about AI drones
- Game logic is developed inside a **python** server, which then outputs telemetry data to be visually processed in **Unreal Engine**
- Designed a terrain generator from scratch using a **Breadth-first search** algorithm
  - Built an Unreal map to showcase the algorithm
- Implemented a desktop application with the **C++** library, **wxWidgets**, to interface with the python server

Amigo

Frontend Engineer

- A mobile application that connects people with similar interests into geolocated group chats
- Designed a user-friendly discovery page in **Flutter** and connected it to the **backend APIs**
- Built an admin page using **Vue** to easily access admin actions

MyContacts

Frontend Engineer

- Designed a table in **React** to connect to backend APIs and display data from the database
- Created **REST API**s to fetch data from a **MongoDB** database

Optimized Mancala Algorithm

- A java cli program that find the most optimal choice path for the game Mancala Avalanche.
- The algorithm uses a recursive **Depth-first search** to go through all the possible move sets and returns the most optimal path

Wordsearch Solver Algorithm

- Program that finds complete words from a wordsearch square. A dictionary is parsed into a **trie**. Depth-first search algorithm to find words and compare then against the dictionary.

PL/0 Compiler

- Simulates a full compiler for the PL/0 programming language written in **C**
  - Lexical analyzer
  - Syntax analyzer
  - Machine code generator