LAURENSIUS JUNAIDY

+6282165285863 | <u>laurenfer2000@gmail.com</u> | Jakarta, Indonesia <u>https://github.com/LaurensiusJunaidy</u> | <u>www.linkedin.com/in/laurensiusjunaidy</u>

EDUCATION

University of California San Diego, San Diego, CA

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Bachelor of Science, Mathematics and Computer Science

 Relevant Coursework: Computer Organization and Systems Programming, Basic Data Structures and Object-Oriented Design, Advanced Data Structures, Theory of Computability, Design and Analysis of Algorithms, Data Science in Practice, Supervised Machine Learning Algorithms.

SKILLS

Languages: Proficient in Python and HTML; Familiar with Java, Javascript, and CSS; Exposed to C, C++,

MATLAB, and Assembly.

Frameworks: React, Git

Databases: MySQL

PROJECTS

Pong Game (Python)

- Developed a pong video game copy using pygame module, conditional statements, and looping statements that allow up to 2 players to play a table tennis video game.
- Implemented features similar to competitive video games using Python and pygame modules such as a victory screen when a certain number of goals are achieved, angle randomizer at the start of the game, and scoreboards for both players.
- Demonstrated my proficiency in Python by creating 4 features for the paddle when activated by the players to add more player interactions and game mechanics.

Sudoku (Python)

- Developed a sudoku solver to solve a 9x9 grid sudoku using recursion and backtracking algorithm to fill empty spaces with necessary numbers.
- o Implemented a function to check the input is valid by checking the number inserted and to keep trying different number combinations.
- Demonstrated my recursion and backtracking abilities by creating a solver that is capable of generating and guessing new numbers to fill empty spaces and repeat the process to solve the sudoku

Whack-A-Mole (Javascript, HTML, CSS)

- Developed a whack-a-mole video game using Javascript, HTML, and CSS that allows a player to select the mole on the 3x3 grid.
- o Implemented functions that allow the mole and the plant to move around the grid.
- Designed a visually appealing video game environment using PNG files that are implemented in the program to attract and engage players to play the game.

Predicting the CCRB's Decision On Complaints from Civilians (Python):

- Developed a mathematically-driven system to detect CCRB complaints that are substantiated by methods of data wrangling, obtaining important features, and fitting the best prediction model from 279,645 unique complaints dataset
- Demonstrated my machine-learning knowledge by performing 4 different classification methods: logistic regression, k-nearest neighbors, random forest, and gradient boosting to compare the performance of each algorithm to get important features.