

Johnathan Bressette

Address

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#Skills

Languages		GUI Libraries	Source Control	Data Management
C	Python	SFML(C++)	Git	MySQL
C++	Java	OpenGL(C)	Github	Pandas (Python)

#Projects

2D Color Puzzle (<https://github.com/Bressette/2D-Color-Puzzle>)

- ↳ 2D puzzle game with a goal of creating a sorted gradient of colors from a scrambled grid by moving columns and rows.
- ↳ Made using C and 2D graphics in OpenGL.
- ↳ Colors are interpolated from randomly selected base colors at each corner to generate color grid.
- ↳ User presses a key to scramble a gradient and clicks on an initial square and then they can use arrow keys to move the grid.

Traveling Salesman Problem Solver (<https://github.com/Bressette/SFML-TSP>)

- ↳ Program that displays a 5-node complete graph and computes the minimum cost Hamiltonian circuit.
- ↳ Made using C++ and graphics in SFML.
- ↳ Uses dynamic programming to solve the traveling salesman problem in $O(2^n * n^2)$.

Crash Database (<https://github.com/Bressette/crashDatabaseProject>)

- ↳ Creation of MySQL database that holds data from crashes in Vermont in 2016.
- ↳ Database is used to generate statistics using SQL queries on the database.
- ↳ Data from a CSV file is parsed and sanitized using the Pandas library in Python, generating a CSV for each table.
- ↳ Data is imported into the database using SQL queries

Sorting Algorithms (<https://github.com/Bressette/sortingAlgorithms>)

- ↳ Implemented common sorting algorithms from scratch in C.
- ↳ Sorts integer arrays using bubble sort, quick sort, merge sort, insertion sort, heap sort, and insertion sort

Airline Priority List (<https://github.com/Bressette/airlinePriorityQueue>)

- ↳ Creates a sorted priority list of passengers on a flight and prints the priority list
- ↳ Reads from text file using C and computes a priority number based on passenger data included in the text file
- ↳ Passengers are sorted into a priority queue using heap sort based on each passenger's priority number.

Console Calculator (<https://github.com/Bressette/stackCalculator>)

- ↳ Simple single digit calculator written in C that takes in user input from the console and computes the result
 - ↳ Reads the character passed in and stores the value in a stack, computing results when a valid operator is entered
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#Education

Florida Polytechnic University / B.S. in Computer Science (3.92 GPA)

August 2018 – May 2021: Lakeland, FL