SHANE BOLDING

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STRENGTHS

Hard-working | Dedicated | Motivator & Leader | Insanely Quick Learner

Coding | AI & Pattern Recognition | Algorithms & Data Structures | Data Communication Between Systems | Microprocessor | Electronics | Memory Management

EXPERIENCE/PROJECTS

Full Time Student

University of West Florida

Aug. 2015 – May 2020 | Pensacola, Fl

- Received two degrees and a minor: A Computer Engineering major, an Electrical Engineer major, and a Computer Science minor.
- Spent countless hours a week to ensure that I understood the concepts being taught that week if I didn't understand.
- Plan on going to get my Master's and Doctorate in robotics.

Tutor

University of West Florida

Aug. 2019 – May 2020 | Pensacola, Fl

- Help countless students understand subjects that may not have understood the subject the first time.
- I worked more than the 10 hours I was paid a week to ensure the students that came to me for help got the help they needed.

PROJECTS

Sudoku GUI w/ Backtracking Solution

Python

July 10, 2020 | My Home

- I used python with its library pygame to create an interactive GUI that allows you to play a sudoku game and solve it once you get stuck and press the space bar.
- Utilizes a recursive backtracking algorithm to solve a sudoku board.

Lego Collecting Robot

C#

Oct. 2019 - Mar. 2020 | UWF

- My senior project was to enter the Southeast IEEE PI Day Competition .
- The goal was to build a robot that picked up the most legos in a specific order in under 3 minutes.
- My team and I accomplished 13 blocks stacked in 3 minutes.
- Unfortunately the contest was cancelled due to Covid.

THINGS ABOUT ME

My Ambition
First in family to go to school in STEM and I strive to learn everyday.

Dedication
I personally made sure that everyone that came to me for help understood and got the help that they need.

Persistence
If I receive a problem I am indivisibly attentive to it ensuring I fixed the problem or got the help needed to complete the problem.

EDUCATION

B.S. in Computer Engineering

University of West Florida

Aug. 2015 – May 2020

B.S. in Electrical Engineering

University of West Florida

Aug. 2015 – May 2020

LANGUAGES

C	●●●●●
C++	●●●●●
MatLab	●●●●○
Python	●●●○○
Java	●●●○○
Assembly	●●●○○
HTML	●●○○○
JavaScript	●●○○○
Japanese	●●○○○
Spanish	●○○○○

PROJECTS CONTINUED

Personal Handheld Game System

Python/Solidworks

July 6 - 9, 2020 | My Home

- Utilized a Raspberry Pi Zero and a 2.2 inch screen to create the system.
- I modeled and 3-D printed its case and buttons and soldered everything together.

Fish Computer Recognition

MatLab

Summer 2019 | UWF

- Assembled an AI that could recognize between 20 fish with 97 percent accuracy.
- Crafted a self learning algorithm that determined the best and most accurate AI system.

The Traveling Salesmen Algorithm

C

Spring 2018 | UWF

- Wrote an algorithm to find the fastest path inside a graph for each starting point of the graph.
- This utilized Dijkstra's algorithm and use of memory managing structures like pointers and structs

Home Security Camera

Python/Solidworks

July 11 | My Home

- Utilized Python and a machine learning algorithm library to watch my doorway and send me a picture through email when it detected a human at the door.
- Modeled and printed a black casing to hold the raspberry pi and camera.
- Plan to add video streaming to a website so I can view anywhere. This currently only works on local network.

My Website

Python/HTML

July 10 - Ongoing | My Home

- Currently using Django library in Python to make a prettier and more utilizable website so that I may host security camera feed only accessible through a secret username and password.
- Utilizes multiple dynamic data structures to hold user information and subsites' information.
- This project doesn't hold any fancy algorithms but it does allow me to be a bit creative with my coding

Programs to Demonstrate Multi-Threading

C++

Spring 2019 | UWF

- Utilized threading to do computationally complex problems in a fraction of the time using a singe thread program.
- Learned about protection of race conditions when threading using a data structure called a Semaphore.
- I did this throughout multiple projects that but I feel the understanding of Multi-Threading was more important than the program.