# SHANE BOLDING

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https://shanebolding.github.io/Showcase/

## **EDUCATION**

## B.S. in Computer Engineering

University of West Florida: GPA - 3.22

**Aug.** 2015 - May 2020

# B.S. in Electrical Engineering

University of West Florida: GPA - 3.43

**Aug.** 2015 - May 2020

# **PROJECTS**

# Sudoku GUI w/ Backtracking Solution **Python**

**July 10, 2020** 

My Home

- created using 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

iii Oct. 2019 - Mar. 2020

UWF

- Entered the Southeast IEEE PI Day Competition .
- Built a robot that to pick up the most Legos in a specific order in under 3 minutes.
- Accomplished 13 blocks stacked in 3 minutes.
- Unfortunately the contest was cancelled due to Covid.

#### Home Security Camera

#### Python/Solidworks

July 11

Mv 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.
- Designed and printed a black casing to hold the raspberry pi and
- Plan to add video streaming to a website so I can view anywhere. This currently only works on local network.

### Personal Handheld Game System

#### Python/Solidworks

**J**uly 6 - 9, 2020

My Home

- Utilized a Raspberry Pi Zero and a 2.2 inch screen to create the system.
- Soldered a safe battery system to ensure fast charging and a battery life of approximately 6 hours.

# LANGUAGES

С	• • •	• •
C++	• • •	• •
Python	• • •	• •
Java	• • •	• •
Assembly	• • •	• •

# **EXPERIENCE**

#### Tutor

#### **University of West Florida**

- Help countless students understand Computer Science, Computer Engineering, and Electrical Engineering that they may not have understood the first time.
- 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.

# **MORE PROJECTS**

# 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.

## Programs to Demonstrate Multi-Threading C/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.
- Constructed throughout multiple projects the understanding of Multi-Threading.