

# JACOB HIGHBRIDGE

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## Professional Summary

Dedicated and self-motivated professional with experience in full stack of software development and project management. Recent obtainer of a B.S. in Computer Science. Tennis player. Audio enjoyer. Always learning new languages and frameworks, and I love including the new things I learn into my projects.

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## Technical Proficiencies

**Front End Languages:** React.js, JavaScript, C++, C, HTML, CSS, Python

**Back End Languages:** Node.js, Express.js, AJAX/jQuery, SQL, PHP

**Tools:** MATLAB, R Studio, GitHub, Docker, Bash

**Database Tools:** MySQL, MongoDB, AWS RDS & EC2

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## Education

**B.S. in Computer Science**

Achieved August 2021

**& Certification in Data Science**

Florida Atlantic University – Boca Raton, Florida

- 3.7 GPA

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## Portfolio

**Automated Locker System for Curbside Pickup – 2021, Project Manager, Full-Stack Engineer**

- **Summary:** An automated locker system designed for the FAU library that is equipped with a Raspberry Pi, touch-screen kiosk interface, a QR-code scanner, and solenoid locks. The lockers can be interacted with as an Administrator by using the accompanying web application which allows orders to be created/automatically assigned to available lockers. Automatically generated emails alert the customer of their order status and include their numerical and QR access codes. It also keeps track of the status of each locker through a JavaScript-based interactive page and saves past orders separately.
- The AWS Aurora Serverless database used cuts server costs due to their pay-for-value billing model, which means that you only pay for what is used. If no orders are present in the database (say, overnight), there is no charge.
- As the Project Manager, meetings were conducted weekly to update the client on the project's progress, and meetings were coordinated with the client and librarians to receive and implement feedback on the design.
- The frontend of the web app was created with HTML/CSS/JavaScript, while the backend consisted of PHP, AJAX, and MySQL to interact with the database.

**Automated Plantation Shutter System – 2020, Software Engineer**

- **Summary:** Built an automatically opening and closing set of plantation shutters by attaching an SG90 analog servo motor to modulate the angle of the shutter. The angle of the shutters was dependent on the input of 4 sensors, monitoring the difference of light levels inside and outside of the house, and the difference of heat levels inside and outside of the house.
- The input and output of this system is controlled by an MSP430G2553.
- This project was written in C++, and the coding was done in CCS using Arduino packages from Energia.

**Exercise Tracking Application – 2021, Full-Stack Programmer**

- **Summary:** A React.js-based web application that allows the User to create exercise logs and assign them to usernames. Usernames are also created by the User and stored in a database. Exercise logs are also stored in a database and retrieved as logged exercises which can be viewed on the main page.
- I created this program to practice programming on a MERN stack, which involves the use of React, MongoDB, Express and Node

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## Work History

**Customer Service**

May 2013 – June 2018

Publix – Palm Beach Gardens, Florida

- Engaged with customers by having positive communications and attitude while providing good customer service.