

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. Piano Player. Audio enjoyer. Proficient in Object Oriented Programming, Data Structures, and Algorithm Design.

Technical Proficiencies

Front End Languages: React Native, React, Next.js, JavaScript, C++, C, HTML5, CSS, SASS

Back End Languages: Node.js, Express.js, SQL, PHP, Python

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

Database Tools: MySQL, Firebase, AWS RDS & EC2

Education

B.S. in Computer Science

Achieved August 2021

& Certification in Data Science

Florida Atlantic University – Boca Raton, Florida

- 3.7 GPA

Portfolio

Automated Locker System for Curbside Pickup – 2020 - 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 cut server costs due to AWS's 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 - 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.

To-do List Sharing Web App – 2022 - current, Full-Stack Programmer

- **Summary:** A React.js-based web application that allows the User to create multiple lists of things to do and share it with other users using their user link. Each element in the list can be selected, edited, and given a description. Kept as simple as possible for ease of use.
- Users create accounts and log in via Google OAuth, with user information being stored in a Firebase Firestore object-oriented database. User lists are stored in and fetched from that database.
- This application relies on the Next.js framework to use SSR and dynamic routes. As an example, to reach a user's notes, their web address would be [https://noteapp.com/\[user\]](https://noteapp.com/[user]).

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.