

# Colton Maring

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## EDUCATION

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**University of Central Florida**  
*Bachelor of Science in Computer Science*

August 2021 - May 2025  
GPA: 3.7/4.0

## PERSONAL PROJECTS

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### **Motion Simulator Software & Platform** | *Javascript, Arduino, Node, Electron*

- Created an application to control a 2-degrees-of-freedom Arduino motion simulator and view its corresponding telemetry
- Utilized the Node runtime and native modules to parse UDP packets and establish a serial connection to an Arduino-driven PCA9685, enabling servo control for real-time motion simulation
- Designed and tested the motion platform using CAD software and 3D printing

### **Conversation Starter Generator** | *Java, Android Studio*

- Developed and launched an Android app on the Google Play Store that enhances social interactions through a smart, location-based conversation starter generator
- Integrated the Google Places API with OpenAI's GPT-3.5 API to generate location-relevant conversation starters

### **Stencil Creator** | *JavaScript, Three.js, HTML, CSS*

- Developed a responsive website to create text stencils specified by user input, utilizing the Three.js library to render the stencil in real-time
- Implemented an export function for effortless use in 3D printing and CNC applications

## COURSE PROJECTS

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### **Contact Manager** | *Javascript, PHP, MySQL*

- Collaborated as a team to develop a web-based contact manager application, allowing users to register or log in and manage their contacts through CRUD operations
- Engaged in front-end development, writing client-side scripts and employing Bootstrap for optimal UI/UX
- Utilized Docker containers for streamlined development and easy deployment in the cloud

### **Pastebin Clone** | *MongoDB, Express, React, Node*

- Developed a feature-rich Pastebin clone using the MERN stack, incorporating CRUD operations and code syntax highlighting for enhanced readability and utility.
- Integrated user email authentication alongside custom middleware for validating JSON Web Tokens.

### **Personnel Management System** | *Java*

- Utilized object oriented programming concepts to develop a program that enables users to store individual profiles while generating an invoice for record-keeping
- Designed a menu-driven interface to easily interact with the Personnel Management System's functions

## EXTRACURRICULAR

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### **KnightHacks Hackathon**

*Fall 2023*

- Led the development of Scale Sense, a web-based musical training tool that utilizes machine learning (ml5.js) and a pre-trained pitch estimation model for real-time note detection
- Secured 3rd place in the overall category out of 100 teams

### **Hackabull Hackathon**

*Spring 2022*

- Worked with a team to develop a website that gathers users' dietary restrictions and preferences and provides nearby restaurant recommendations
- Designed an intuitive UI/UX in React with Bootstrap as well as handled requests and responses to the Google Places API

## TECHNICAL SKILLS

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**Languages:** Java, JavaScript, HTML/CSS, C, Python

**Frameworks and Libraries:** Node, Electron, Swing, React, Express, Bootstrap

**Tools:** Git, Apache, Gradle, Vite, Linux, Windows, Cloud Computing, Android Studio, Microsoft Office

**Hardware:** Arduino, Raspberry Pi, Home Lab, 3D Printing