# **CHARLES BEAM**

Computer Science Student Seeking a Summer 2022 Internship

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Cbturtle2
in Charles Beam

## **PROJECTS**

# Student Location Declaration System $\mid$ C++, MySQL, and LaTeX

https://charlesbeam.com/proj/distinction

Created a system that allowed for students to declare this location by scanning a rfid tag. This system allows for classrooms and clubs to take attendance without wasting time. This system also allows for students to easily declare the building they are in. Built using C++ and MySQL with a writeup in LaTeX.

## Payload for Recording Environmental Data at 100,000ft | c++

https://charlesbeam.com/proj/LAACESProgManager

Was programming manager on a team of 5 people where a payload was launched into the upper atmosphere (100,000ft) with the goal of visualising saturated vapor pressure as a function of altitude. Was in charge of programming board and conducting rigorous testing to ensure the program would not break during flight. This program was written onto a Arduino Mega using C++

### Graph Automation App | Python and MatPlotLib

https://laspace.lsu.edu/laaces/

Created a python program that automates the graphing of the data collected from the payload mentioned in the project above. Created a multitude of different graphs from a .txt file and saved them all to a folder to ease in the creation of a presentation for LASPACE. This program was written in Python using the matplotlib library using Python.

#### Lightweight ordering system | Python

https://www.youtube.com/watch?v=pVr1gWb4uDk

Created a restaurant ordering system that would allow people to order at restaurants without speaking to their waiter in an effort to slow the spread of Covid-19. This program has basic ordering, menu, and current orders functionality. This program was written in Python and submitted to the Congressional App Challenge LA-06 where it won Honorable Mention & Most Likely to Save a Life

#### Portfolio Website | HTML, CSS, and Kubernetes

https://charlesbeam.com/

Created a basic portfolio website using HTML and CSS which was deployed through kubernetes. This website serves as a hub for my resume, project write-ups, and general information.

## **ACTIVITIES**

#### **Computer Science House**

Member | Aug 2021 - Present

A group of students at RIT who come together to advance each others knowledge of computer science and to maintain strong social relations.

#### **Computer Science Community**

Member | Aug 2020 - May 2021

A group of computing students at RIT dedicated to helping each other thrive socially, academically, and professionally.

#### Computer Science Club

President | Aug 2020 - May 2021

Responsible for planning club meetings and presenting computer science related presentations.

#### **Robotics Club**

Co-President | Aug 2020 - May 2021

Responsible for planning club meeting and getting everyone in the club organized.

### **EDUCATION**

Rochester Institute of Technology B.S. in Computer Science | 2021-2025

Louisiana School for Math Science & the Arts

Public Residential High School | 2019-2021

## **SKILLS**

Languages
Proficient: Python LaTeX C++ Java
Experienced: HTML CSS
Technologies
Proficient: Linux Git Github
Experienced: MySQL Flask Bash
Kubernetes Vim

### **AWARDS**

#### LSMSA Distinction | 2021

**Finalized Version of Student Declaration System** 

Congressional App Challenge Honorable Mention & Most Likely to Save a Life | 2020

**Lightweight Ordering System** 

Congressional App Challenge 3rd Place | 2019

Early Prototype of Student Location Declaration System

## **RELEVANT COURSES**

Data Structures   C++
Graph Algorithms   Python
Software Engineering   Python
C++ Through Game Design   C++
Fundamentals of HTML, CSS, & JavaScript   HTML, CSS, and JavaScript

AP Computer Science A | Java (5 on AP exam)