

EDUCATION

University of Michigan | Ann Arbor, MI

Graduation: May 2025

GPA: 3.7/4.0

Double Major: *Computer Science, Sociology*

Website: bbox123.github.io

Skills

Relevant Coursework: EECS 280 (Programming and Intro Data Structures), EECS 281 (Data Structures and Algorithms), EECS 203 (Discrete Mathematics), EECS 370 (Computer Architecture and Design)

Languages: C++, C, C#, Python, JavaScript

Tools: Visual Studio, Unity, Jira, Confluence, Bitbucket, Git, Plastic SCM, HTML, CSS

Personal Projects

WolverineSoft Winter 2023 Studio: Curse of the Corsair

https://store.steampowered.com/app/2365570/Curse_of_the_Corsair

(C#, Unity, 40-person team)

- Top-down action-adventure game developed over 10 weeks
- Owned and maintained interactable system
- Lead development of scalable and versatile trap system and switch system
- Lead implementation of verticality, treasure chests, destructible objects, and item pickups

Discord-server web scraper

<https://bbox123.github.io/discord-server-web-scraper/>

(Python, HTML)

- Developed a program that fetches and parses HTML data on Discord (a VoIP and instant messaging platform) servers based on searched tags, which can then be sorted by desired population size
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Academic Projects

Traveling Salesperson

(C++, graph theory, backtracking and branch and bound algorithms)

- Developed three separate algorithms for generating a minimum spanning tree, a heuristic traveling salesperson solution, and an optimal TSP solution.
- Implemented Prim's algorithm for the MST, and utilized a greedy nearest neighbor algorithm for the heuristic TSP
- Implemented an optimal TSP solution utilizing both the MST and the heuristic TSP solutions along with a branch and bound approach using generated permutations

Discussion Post Identifier

(C++, machine learning, maps)

- Developed a machine learning ADT that can identify the subject of a student's discussion board post
- Trained program utilizing the bag of words model and maps to store the frequency of certain words and their associated tags

LC2K Assembler, Linker, and Simulator

(C, assembly)

- Created an application that takes in up to 5 LC2K assembly files and outputs the corresponding linked machine code which can then be executed in a simulation