

Will Dufault

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EDUCATION

Worcester Polytechnic Institute (WPI), Worcester, MA

May 2024

- Bachelor of Science in Computer Science
- Minor in Data Science
- GPA 3.9/4.0

Related Courses:

- Software Engineering
- Operating Systems
- Introduction to Machine Organization and Assembly Language
- Algorithms
- Introduction to Artificial Intelligence
- Database Systems I
- Modeling and Data Analysis

EXPERIENCE

Paint Sales Associate, The Home Depot, Worcester, MA

May 2022 – Oct. 2022

- Took orders from up to three customers at once, mixed and shook paint, cleaned aisles, operated machinery, unloaded palettes, and stocked shelves.
- Assisted 1-2 customers at a time with any questions or requests, regardless of department.

PROJECTS

(All projects available on github.com/wduf)

Punchender

- Led a group of four to create a fully functioning crowdfunding site in three weeks.
- Handled all web requests using React with axios, which called 19 AWS Lambda functions through a REST-based API on API Gateway.
- Stored information in a MySQL database with four tables through RDS.

Interactive Data Structure Visualizer

- Created an interactive visualization tool for five data structures, including LinkedLists, Stacks, Queues, Binary Search Trees, and Max Heaps using HTML, CSS, and JavaScript.
- Allow users to add or remove values from each data structure, which are then displayed using the HTML Canvas API.

Connect Four with Smart Bot

- Created a version of Connect Four that runs in the Windows terminal using C++.
- Allow players to play against another person or a smart bot on any size board.
- Bot calculates a score for every column based on the adjacent pieces and streaks, then selects the column with the highest score or one at random if there is a tie.

NFL Combine Draft Predictor

- Trained six machine learning models to predict what round players would be drafted based on their NFL Combine performances using Python.
- Evaluated each model, including linear regression, random forest regression, and k-nearest neighbors combined with a principal component analysis and a grid search.

SKILLS

Programming Languages: C, C++, Java, Python, JavaScript, HTML, CSS

Tools: Git, React, AWS, MySQL