# Will Dufault

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## **EDUCATION**

Worcester Polytechnic Institute (WPI), Worcester, MA Bachelor of Science in Computer Science, GPA 3.92/4.0

May 2024

**Lincoln-Sudbury Regional High School (LSRHS)**, Sudbury, MA **High School Diploma**, GPA 3.7/4.0

Jun. 2020

## **Related Courses:**

- Software Engineering\*
- Algorithms
- Database Systems I\*
- Intro to Machine Organization and Assembly Language
- Operating Systems
- Introduction to Artificial Intelligence\*
- Social Implications of Information Processing\*
- Modeling and Data Analysis

#### **EXPERIENCE**

Paint Sales Associate, Home Depot, Worcester, MA

May 2022 - Oct. 2022

- Responsible for taking customers' orders, finding bases, mixing, and shaking paint.
- Helped customers with any questions or requests, regardless of department.

## Independent Landscaper, Sudbury, MA

Jun. 2019 - Aug. 2021

- Contacted customers and coordinated jobs.
- Maintained customer relationships across multiple years and had many repeat customers.

## PROJECTS

(All projects available at github.com/wduf)

#### Interactive Data Structure Visualizer

- Using HTML, CSS, and JavaScript, I created an interactive visualization tool for LinkedLists, Stacks, Queues, and Binary Search Trees.
- User can edit the values in each data structure, which are displayed using the Canvas API.

## **Connect Four with Smart Bot**

- Using C++, I created a version of Connect Four that runs in the Windows terminal.
- Player can play against another person or a smart bot.
- For every legal column, the bot calculates a score based on the adjacent pieces and streaks, then chooses the move with the highest score or selects one at random if there is a tie.

### **NFL Combine Draft Predictor**

- Using Python, three others and I created and trained multiple machine learning models to predict what round players would be drafted based on their NFL Combine performances.
- Tested multiple different models, including linear regression, random forest regression, and k-nearest neighbors combined with principal component analysis and a grid search.

### **SKILLS**

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

Tools: Git, React, AWS, MySQL, GDB, Valgrind

<sup>\*</sup> To be completed by May 2023