Will Dufault

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EDUCATION

Worcester Polytechnic Institute (WPI) **Worcester, MA**
Bachelor of Science – Major in Computer Science with a Minor in Data Science Aug. 2020 – May 2024

- **GPA:** 3.9/4.0
- **Relevant Coursework:** Software Engineering, Algorithms, Operating Systems, Introduction to Machine Organization and Assembly Language, Database Systems I, Social Implications of Information Processing, Introduction to Artificial Intelligence, Modeling and Data Analysis
- **Awards:** Dean's List for all semesters

EXPERIENCE

The Home Depot **Worcester, MA**
Paint Sales Associate May 2022 – Oct. 2022

- Performed tasks for 1–3 customers simultaneously such as mixing paint, operating machinery, finding and/or fetching products, and cleaning spills, among others.
- Maintained at least a 70% customer retention rate by assisting 30–40 customers per day with any questions or requests across all departments.

PROJECTS (Available at github.com/wduf)

Punchender Nov. 2022 – Dec. 2022
github.com/wduf/punchender

- Led a group of four to create a crowdfunding site by distributing work and setting biweekly deadlines.
- Handled all HTTP requests asynchronously using React and axios, which called 19 Lambda functions through a REST API on API Gateway.
- Stored and accessed information in a MySQL database with four tables through RDS.

Interactive Data Structure Visualizer Sep. 2022 – Nov. 2022
wduf.github.io/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.
- Allowed users to add or remove values between -1000 and 1000 from each data structure.
- Displayed the current state of each data structure, scaled with its size, using an HTML Canvas.

Connect Four with Smart Bot Jun. 2022 – Jul. 2022
github.com/wduf/connect-four

- Created a version of Connect Four that runs in the Windows terminal using C++.
- Allowed players to play against another person or a smart bot on any size board.
- Designed a bot that 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 Apr. 2022 – May 2022
github.com/wduf/nfl-combine-machine-learning

- Trained six machine learning models to predict what round teams would draft players based on their NFL Combine performances using Python and scikit-learn.
- 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
Frameworks & Libraries: React, axios, scikit-learn, pandas, NumPy, pthread
Tools: Git, AWS (Lambda, API Gateway, RDS, S3), MySQL, GDB, Valgrind