Rudra Patel
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As a dedicated and innovative software developer, I possess a robust foundation in various programming languages and operating systems, combined with hands-on experience in executing diverse projects. My goal is to drive technological advancement and deliver high-quality solutions within the ever-evolving field of software development. I am committed to leveraging my technical expertise to solve complex problems and contribute to dynamic development teams.

WORK HISTORY

WingStop Bayonne , New Jersey | Assistant Manager Present

- Successfully transitioned into a leadership role, driving operational efficiency and team performance. Oversee daily operations and ensure exceptional customer service delivery.
- Direct daily operations, manage staff, and optimize workflows for streamlined processes and enhanced productivity.
- Implemented initiatives resulting in a 20% increase in team productivity and a 15% rise in customer satisfaction ratings.

EDUCATION

Rutgers University, New Brunswick, NJ **Dec-24**
Bachelor of Science, Computer Science
Related Courses: Software Methodology, Data Structure & Algorithm, Design and Analysis of Computer Algorithms, Systems Programming, Computer Architecture, Numerical Analysis, Principles of Information and Data Management

PROJECTS

Chess Game Developer | Java, OOPs, JavaFX, Android **Present**

- Built a strategic chess game in Java using **advanced algorithms**, featuring full move validation, check/mate detection, special moves, and file-based input/output for comprehensive gameplay and analysis. Implement move validation, check/mate detection, special moves, and file-based input/output.
- Built the game in Java, designed a sleek ASCII art UI, and translated it to Android. Delivered a fully functional chess game enhancing user engagement and expanding to mobile platforms.

Kindergarten Classroom Simulation | Java, OOPs, Linked List, Arrays **Spring '23**

- Simulate a kindergarten classroom with realistic activities. Manage student entries, seating arrangements, and games using data structures.
- Developed the project using Singly Linked Lists, 2D arrays, and Circular Linked Lists. Achieved a realistic simulation with fair seating logic, enhancing user interaction and gameplay realism.

Huffman Coding for Text Data Compression | Java, OOPs, Graph, Tress, Array **Spring '23**

- Designed and implemented a highly efficient Huffman Coding algorithm to significantly reduce text file sizes. This involved creating a comprehensive encoding scheme that prioritizes the most frequently occurring characters to ensure optimal compression.
- Developed the algorithm in Java, meticulously ensuring data integrity throughout the compression and decompression processes. Implemented advanced graph traversal methods (DFS and BFS) to build and navigate the Huffman tree structure. Reduced file sizes by up to 60%, demonstrating advanced algorithmic efficiency and accuracy.

Kaggle Competition **Fall '22**

- Secured a top 3 position out of 250 participants by developing a highly accurate predictive model for Citi Bike demand. This involved extensive data analysis and feature engineering to capture key patterns and trends in the data.
- Integrated weather and holiday data to enhance model performance, leveraging advanced statistical techniques and machine learning algorithms in R. Conducted rigorous hyperparameter optimization to fine-tune the model for maximum accuracy and efficiency. Achieved a significant boost in model accuracy, aligning with competition guidelines and demonstrating data-driven decision-making skills.

SKILLS

Programming Languages: Java, C, C++, Python(NumPy, Pandas, Matplotlib), R, PHP, MATLAB, Maple, Android development

Database Systems: MySQL, Microsoft Access, Oracle SQL, MongoDB

Web Technologies: HTML, CSS, Bootstrap, JavaScript, Git

Other Skills: JavaFX, Memory management, File I/O, File systems, Process management, IPC, Multitasking, Networking