

Raj Atul Patel

Software Developer

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EDUCATION

Master of Science, Computer Science

Specialization: Machine Learning

UNC Chapel Hill

Aug 2024 – May 2026

Bachelor of Science, Computer Science

GPA: 3.926 (*Summa Cum Laude*)

North Carolina State University

Aug 2020 – May 2024

Relevant Coursework: Automated (Machine) Learning and Data Analysis, Applied Web-based Client-Server Computing, Data Structures and Algorithm, Game Engine Foundations, Discrete Mathematics, C and Software Tools, and Operating Systems.

SKILLS

Programming Languages: Java, C, C++, Python, ReactJS, HTML, CSS, JavaScript, NodeJS, MATLAB, MySQL, MongoDB

Frameworks: Docker, SpringBoot, Hibernate, AngularJS, Bootstrap, Express.js, JUnit

Tools: VSCode, Eclipse, Visual Studio, Sublime Text, Figma, GitHub, Canva, SolidWorks, Fusion360, Jupyter Notebook

WORK EXPERIENCE

C-Store

Enterprise Resource Developer

Cleveland, Ohio

May 2023 – Jul 2023

- Developed a novel order management system using Java and SpringBoot frameworks to ensure scalability and efficiency.
- Leveraged advanced data analytics techniques to perform comprehensive sales data analysis, identifying key trends and opportunities incorporating machine learning algorithms and data visualization tools increasing ~10% sales revenue.
- Designed and developed a mobile application for inventory management, focusing on usability and real-time data synchronization reducing manual operations by ~50% through intuitive user interfaces and efficient backend services.
- Integrated aforementioned tools to enhance inventory accuracy and streamline operations and incorporated microservices architecture and APIs to achieve seamless data flow and communication, resulting in a 6% reduction in operational costs.

Bhagat Dhanadal Corporation

Web Designer

Ahmedabad, India

May 2022 - Jun 2022

- Led the development of an e-commerce platform for consumer products to increase online sales by at least 10%.
- Conducted user research, constructed wireframes, and utilized responsive design techniques including scroll-triggered image animations, dynamic content loading and CSS transitions contributing to improved usability metrics.
- Designed intuitive visual user interfaces using Sketch and Figma, focusing on clean typography, cohesive color schemes, and seamless navigation, which significantly enhanced user engagement by 15% and higher user satisfaction levels.
- Conducted rigorous A/B testing and facilitated user feedback sessions to iteratively refine design elements such as layout, call-to-action placements, color schemes, and content hierarchy resulting in 18% improvement in conversion rates.

PROJECT EXPERIENCE

Sunshine | Java, JavaScript, ReactJS, SpringBoot, Hibernate, MySQL, CSS, Bootstrap

Jan 2024 – May 2024

- Led the development of a web application to augment mental health counselling amongst students.
- Created a user-friendly appointment scheduling system for students to receive support from a network of mental health professionals and 6000+ peers.
- Implemented secure authentication with authorization levels based on user roles and live data synchronization resulting in ~40% decrease in unauthorized attempts ensuring protection of privacy and reliability of sensitive user information.
- Shaped the frontend of a comprehensive chat platform that incorporates one-on-one conversations and one-to-many group discussion functionalities to ensure efficient communication thereby cultivating a supportive environment.

All-NBA Predictions | Python

Jan 2024 – May 2024

- Created a Machine Learning Model using cross-validation techniques capable of predicting All-NBA winners with an accuracy of 98.16% to ensure model robustness and preventative overfitting.
- Evaluated machine learning models (Decision Tree, KNN Classifier (K-Nearest Neighbors), AdaBoost) on a ~240k points dataset using accuracy, precision, recall, and F1 score metrics for comprehensive comparison.

Game Engine | C++, JavaScript

Aug 2023 – Dec 2023

- Crafted and optimized a game engine utilizing efficient concurrency models and scalable networking protocols to support seamless multi-client connectivity dynamics recreating 3 popular games such as FlappyBird, Snake, and Jump King.
- Integrated an event management system to facilitate real-time handling of player interactions, events, and game state updates enhancing real-time gameplay responsiveness and overall system efficiency.

RecipeFly | ReactJS, NodeJS, HTML, JavaScript, CSS, MongoDB

Aug 2023 – Dec 2023

- Built a recipe-sharing platform with dynamic frontend interfaces, scalable backend operations, and implementation of API to manage social interaction functionalities, resulting in a responsive and interactive user experience.
- Utilized advanced authentication mechanisms and encrypted data transmission to enhance platform security and user privacy, achieving a seamless recipe-sharing environment along with efficient retrieval and storage of user data.