

Skills

- **Programming Languages** : C++, SQL, JavaScript, HTML, C
- **Libraries and Frameworks** : ReactJS, Redux, NodeJS, Express.js
- **Tools** : MySQL, Git, Webpack, VS code
- **Other Skills** : Algorithms, Data Structures, DBMS, Operating System, OOPS

Projects

E-Commerce Application

🔗 <https://github.com/tarun931/E-Commerce-Project>

- Created intuitive e-commerce UI with React.js, utilizing functional components and hooks like useState, useEffect, and Memoization for enhanced performance and maintainability.
- Implemented Redux for state management, integrating components like ReduxAddToCart, Cart, and CartTotal to provide seamless shopping experiences while ensuring data consistency .
- Utilized React's context and fragments for streamlined component communication and modularity, reducing prop drilling, while also implementing debouncing for efficient search, preventing server overload.
- Produced unit tests to validate codebase, achieving 95% test coverage.

Prediction of Dementia using Deep Learning

🔗 <https://github.com/tarun931/Dementia-Prediction>

- Published by 4th International Conference of Computer and Communication (IC3T) in springer book .
- Outlined that 74.7 million people are projected to experience Dementia caused by Alzheimer's disease by 2030.
- Formulated model uses brain MRI images, CNN , ReLU , sigmoid ,binary cross entropy .
- Achieved Training accuracy of 99.40% and validation accuracy of 96.61%.

Chat Application

- Developed a feature-rich chat application using the MERN stack, integrating real-time communication with websockets for instant messaging functionality.
- Implemented advanced features including online indicators, file uploads/attachments, and auto-scrolling, enhancing user experience and engagement.
- Engineered authentication mechanisms to ensure secure connections, safeguarding user data and privacy.
- Reviewed the bundle size using Webpack Bundle Analyzer, used code splitting methods, and achieved a 20% decrease in bundle size.

Achievements

- Published Research Paper : Prediction of dementia using Deep Learning
https://link.springer.com/chapter/10.1007/978-981-19-8563-8_18
- Secured Global Rank 88 among 28000 participants in CodeChef Long Challenge <https://rb.gy/a6apsq>
- Secured All India Rank 26 out of 70,000(approx) participants in AMU entrance examination , 2015.
- University rank 1 on InterviewBit coding platform https://www.interviewbit.com/profile/tarun-singh_528/
- 5 star C++ coder on HackerRank.

Education

Scaler

2024

Specialized in Software Development & Problem Solving

Coursework : Data structures and Algorithms, Low-level Design (LLD), High-level Design (HLD), MERN Stack.

Cmrit bangalore

2022

BE/B.Tech/BS in Computer Science | 7.49 CGPA