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SOFT SKILLS

- Teamwork
- Leadership
- Effective Communication
- Project Management

TECHNICAL SKILLS

- Machine Learning
- Mysql
- Data Visualization
- C / C++
- Java / Springboot
- MERN stack
- Python

EDUCATION

- B.Sc. (Hons) Computer Engineering 3rd year Undergraduate University of Ruhuna
- 2020-Advanced Level Maliyadeva boys college

KAVINDU RATHNAMALALA

COMPUTER ENGINEERING UNDERGRADUATE

PROFILE

As a passionate and driven computer engineering student, I am eager to leverage my academic knowledge and practical skills to contribute meaningfully time and innovative projects as an intern

EXPERIENCE & PROJECTS

• Breast Cancer Prediction Model

This machine learning project focuses on early breast cancer detection using the UCI Breast Cancer Wisconsin (Diagnostic) dataset. The pipeline includes data preprocessing, multicollinearity-based feature selection, and the implementation of Logistic Regression and Random Forest classifiers to distinguish malignant from benign tumors. Model performance was evaluated using accuracy, precision, recall, F1-score, and ROC-AUC metrics. Feature importance analysis offered insights into key factors contributing to detection.

• Inventory Management & Authentication System for Book Shop

This full-stack project was developed using the MERN stack to streamline inventory management and provide secure user authentication. The application features a robust backend built with Node.js and Express.js, integrated with a MongoDB database for efficient storage and retrieval of book inventory data. Administrators can manage book stock, track updates, and add or remove inventory through a user-friendly interface created with React. The authentication system is powered by Firebase Authentication, offering secure user sign-up and login functionality, along with support for role-based access control to differentiate between administrators and customers. The application incorporates RESTful APIs to enable communication between the frontend and backend. To enhance usability, the frontend leverages React Router for navigation and dynamic rendering, offering an intuitive experience for both administrators and customers. Key technical implementations include CRUD operations for inventory management, role-based access control to differentiate between admin and customer privileges.

• Automated HR Management tool (ongoing)

This AI-driven system was developed using the MERN stack and integrates GPT technology to enhance automation and decision-making. The tool streamlines HR processes by offering comprehensive features, including job vacancy postings, secure applicant registration, and real-time application tracking. Key functionalities include filtering CVs based on job-specific criteria and using customized GPT to conduct automated interviews, providing dynamic and context-aware question generation to evaluate candidates effectively. The backend is powered by Node.js and Express.js, with MongoDB for database management, and the frontend is built using React.js. This tool demonstrates expertise in full-stack development, AI integration, and automating complex workflows to optimize recruitment efficiency and improve the quality of hiring decisions.

• DBMS for clinic management

Design a complete database for clinic management using MYSQL

• Path planning system for a logistic company

The Path Planning System for Logistics is a comprehensive route optimization project aimed at improving the efficiency and effectiveness of delivery operations for a logistics company. Implemented using data structures and algorithms in C++, the system's main goal is to identify the shortest and most efficient routes, ensuring timely deliveries and reducing operational costs.

VOLUNTEERING

- Organizing committee member of IEEE SparkLink 1.0
- Member of Zero Plastic Ruhuna Community

REFERENCE

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