SOWUNDARYA R

+91 9360459115 | Gmail | Linkedin | Github | Leetcode

Summary

A self-driven and passionate Computer Science and Engineering student with a strong foundation in Data Structures, Algorithms, and web technologies. Seeking an entry-level opportunity to apply problem-solving skills and build scalable, user-friendly interfaces while continuously learning and growing in a collaborative environment.

Education

2023–2027 **BANNARI AMMAN INSTITUTE OF TECHNOLOGY**
B.E - Computer Science and Engineering
CGPA: 8.24 (upto 5th semester)

2022–2023 **S.V.N Matric Higher Secondary School**
12th - 96.16%

2020–2021 **S.V.N Matric Higher Secondary School**
10th - Pass

Skills

Concepts	: OOPS, Data Structures and Algorithms, Database Systems
Programming Languages	: Java, Python, SQL
Web Technologies	: HTML, CSS3, Bootstrap, JavaScript
Tools	: Git, Postman, MySQL, PostgreSQL, VS Code

Projects

FREELANCE MARKETPLACE PLATFORM

Technologies: React.js, Node.js, Express.js, MongoDB, RESTful APIs, JWT Authentication

- Built a full-stack web application inspired by Upwork to connect clients and freelancers for project-based work.
- Designed a responsive user interface using React.js with intuitive navigation and dynamic content rendering.
- Developed secure JWT-based authentication for separate client and freelancer roles.
- Created and integrated RESTful APIs with Node.js and Express.js for job posting, bidding, and user management.
- Used MongoDB to efficiently handle user profiles, project listings, and transaction data.
- Implemented backend logic for bidding workflows, project tracking, and review systems.

MAP-BASED NEWS RETRIEVAL SYSTEM

Technologies: React.js, Node.js, Express.js, PostgreSQL, RESTful APIs, Leaflet.js, External News APIs

- Developed a full-stack web application that displays location-based news on an interactive map interface.
- Designed a responsive frontend using React.js and integrated it with a secure Node.js and Express.js backend connected to a PostgreSQL database.
- Implemented RESTful APIs for user authentication, data retrieval, and CRUD operations, enabling real-time news updates based on user location.
- Ensured smooth communication between the frontend, backend, and external news APIs for an efficient and user-friendly experience.

WATER QUALITY PREDICTION

Technologies: Python, Scikit-learn, HTML , CSS, Tailwind CSS, Folium, GeoPandas, Flask, RESTful APIs

- Developed a machine learning-based web application to predict the potability of water and visualize results through interactive geospatial maps.
- Implemented Random Forest and Gradient Boosting models for accurate classification, evaluated using ROC-AUC and accuracy metrics.
- Designed a responsive frontend using React and Tailwind CSS for real-time result visualization and user interaction.
- Integrated APIs for smooth data exchange between frontend and backend, and used Folium and GeoPandas for regional potability visualization.

Certificates & Achievements

CONFERENCE Presented a research paper titled "Music Recommendation Based On Facial Expression" at the 4th National Conference on Recent Advancements in Science, Engineering and Technologies (RASET-2024), Bannari Amman Institute of Technology. Received the Best Paper Award for outstanding innovation.

CERTIFICATION Completed the NPTEL course **"Programming in Java"** with an outstanding score of **94% (Elite)**.

Competitions

Imaginative 2.0 The Ultimate Prodman Challenge, Empyrean Annual Fest, Indian Institute of Management (IIM), Jammu (2024).

Hackathon Participated in **TANCAM Women Hackathon 2024** under the theme "Water Quality Prediction using Machine Learning". Developed an ML-based model to predict water potability and visualized results using geospatial data.