MOHAMED MUSTHABA S M

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PROFESSIONAL SUMMARY

Detail-oriented B.Tech Information Technology student with solid knowledge in programming, database systems, and technical problem solving. Eager to apply engineering knowledge, support technical operations, and build a strong professional foundation in a structured and challenging environment.

SKILLS

Languages/Frameworks - Java, TypeScript, Python, JavaScript, SQL, Node.js, React

Core Concepts - Software Architecture, Data Structures & Algorithms, Object-Oriented Programming (OOP), Database Design

Tools & Technologies - PostgreSQL, Redis, BullMQ, Docker, SHAP (XAI), MetaMask, Git, GitHub API

PROJECTS

CodePulse AI – Engineering Intelligence Platform

May 2026 – Present

- Developed a full-stack engineering intelligence platform that automatically analyzes GitHub repositories to provide actionable insights on code quality, temporal coupling, knowledge risks, and overall architectural health using an asynchronous ML pipeline (Python, Redis, BullMQ).
- Integrated a Gemini-powered AI Review Assistant featuring precise, semantic AST-based validation via the TypeScript Compiler API to eliminate hallucinated code reviews and improve developer productivity.

Technologies: TypeScript, Next.js, React, NestJS, Python, PostgreSQL, Redis, BullMQ, Docker, GitHub API

Explainable AI for Loan Approval & Amount Prediction System

Jan 2026 – April 2026

- Developed an AI-powered loan prediction system utilizing robust Machine Learning algorithms to assist financial decision-making, coupled with Explainable AI (SHAP) integration to generate fully transparent predictions and help users understand key influencing factors.
- Built a highly interactive Streamlit web application featuring seamless real-time prediction capabilities, comprehensive data preprocessing pipelines, and automated model evaluation metrics within an intuitive user interface.

Technologies: Python, Scikit-learn, Pandas, NumPy, SHAP, Streamlit

Decentralized Electronic Voting System

Aug 2025 – Dec 2025

- Developed a robust, blockchain-based electronic voting application using Ethereum smart contracts to guarantee secure, fully transparent, and tamper-resistant digital elections featuring decentralized voter registration and strict role-based access controls.
- Built a highly responsive React.js frontend integrated directly with the deployed smart contracts via Ethers.js and Hardhat, enabling secure MetaMask wallet authentication and seamless, immutable ballot recording on the blockchain network.

Technologies: Solidity, React.js, Hardhat, Ethers.js, MetaMask, Ethereum

EDUCATION

Bachelor of Technology (B.Tech) in Information Technology

2022 – 2026

Sona College of Technology, Salem, TN

Higher Secondary Certificate (HSC)

2021 – 2022

Rose Mary Matric Higher Sec School, Tirunelveli, TN

CERTIFICATIONS

- **Innoknowvex: Web Development Training** – Completed a hands-on internship and training program (Jan 2026 - Mar 2026), gaining practical experience in full-stack web development and responsive design.
- **NPTEL: Introduction to Internet of Things** – Acquired comprehensive knowledge of IoT fundamentals, encompassing system architecture, sensor networks, communication protocols, and real-world industrial applications.
- **Aptithon Top 20 Finalist** – Secured a top 20 placement out of 180 highly competitive teams, demonstrating advanced logical reasoning and strong analytical problem-solving capabilities.