



# ROSHAN K

Mechanical Engineer Graduate

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🌐 [roshan21k.github.io/portfolio/](https://roshan21k.github.io/portfolio/)

## ABOUT ME

Recent Mechanical Engineering graduate with a strong interest in Machine Learning and Data Science. Looking to contribute to research in AI and related areas by applying analytical thinking, programming skills, and a solid foundation in mathematics.

## EDUCATION

2020 - 2024

SRM University

**Bachelor of Technology - Mechanical Engineering**

2021 - 2023

IIT Madras

**Diploma in Programming - Online**

## PROJECTS

### Development and Analysis of Polymer Composite via Friction Stir Processing for Biomedical Applications - BTech Mechanical Engineering

Designed and fabricated a novel biocompatible composite using PLA, basalt fiber, and hydroxyapatite to enhance mechanical strength and suitability for load-bearing implants. Utilized Friction Stir Processing to ensure uniform HA dispersion and improve microstructure properties.

### Grocery Store Web Application - Diploma in Programming

Developed a full-stack grocery store web application with distinct interfaces for users, managers, and administrators. Built using Python (backend) and Vue.js (frontend), with SQLite for data storage, Redis for caching, and Celery for asynchronous task management. Integrated Progressive Web App (PWA) features to enable offline access and responsive mobile experience. Implemented email notifications for improved user engagement.

## CERTIFICATIONS

**Descriptive Statistics with R Software - NPTEL Online Certification**

**Complete JavaScript Course - Udemy**

## SKILLS

- Python
- JavaScript
- SQL
- HTML
- CSS
- Communication
- Critical Thinking
- Problem Solving