

# J Madhan Kumar

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## EDUCATION

### VIT-AP UNIVERSITY

B.TECH IN CSE WITH AI AND ML

2023 - 2027 | Amaravati, AP

CGPA: 8.61 / 10.00

## LINKS

Leetcode

Github

LinkedIn

## COURSEWORK

### CORE CONCEPTS

Data Structures and Algorithms

Operating Systems

DBMS

Object Oriented Programming

## TECHNICAL SKILLS

### PROGRAMMING

C\C++ • Python • HTML\CSS

JavaScript • Java

### WEB TECHNOLOGIES

HTML • CSS • JavaScript

### DATABASES & CLOUD

MySQL • AWS

### DEVELOPER TOOLS & OTHERS

Github • Git • VS Code

### CERTIFICATIONS

Data Structures and Algorithms

## PROJECTS

### GESTURE CONTROLLED ROVER

Aug 2024 – Nov 2024

- Designed and implemented a **gesture-controlled robotic rover** using **Arduino Nano**, **MPU6050 accelerometer**, and **NRF24L01 transceiver** modules for **seamless wireless communication**.
- Enabled **intuitive real-time navigation** through **hand gesture detection**, with accelerometer data transmitted wirelessly to precisely control the rover's movement.
- Integrated **safety features** such as timeout-based auto-stop, **visual feedback** via LEDs, and efficient motor control with the **L298N driver**.
- Tools used:** Arduino Nano, MPU6050, NRF24L01, L298N Motor Driver.

### SECURE PAYMENT VISUALIZER

May 2025 – June 2025

- Developed a **fintech-focused portfolio project** simulating global payment transactions with a focus on **security, reliability, and real-time processing**.
- Engineered** a responsive front-end using **HTML, CSS, and JavaScript**, implementing modern **UI/UX design principles** to enhance user engagement and accessibility across devices.
- Integrated **serverless endpoints** to fetch simulated transaction data and AI-generated summaries, ensuring dynamic content delivery without reliance on real card data.
- Implemented** end-to-end encryption for data in transit and at rest, demonstrating a commitment to **security best practices** in financial applications.
- Showcased** high scalability and redundancy in the design, emphasizing the ability to process transactions across geographies in milliseconds.