

Hemanth Kumar R

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ABOUT ME

Results-driven Computer Science and Engineering student with a strong foundation in Java, SQL, Python, and cloud computing concepts. Skilled in software development, machine learning, and data analytics through academic and research projects. Recognized for strong analytical thinking, problem-solving abilities, and adaptability. Passionate about cloud technologies, artificial intelligence, and developing innovative solutions to real-world challenges.

EDUCATION

B.Tech in Computer Science and Engineering 2022 – 2026
SRM University, Chennai
CGPA: **8.18**

Class XII (PCMC) 2022
Base PU College, Bengaluru
Percentage: **86.5%**

Class X (General Education) 2020
S Cadambi Vidya Kendra, Bengaluru
Percentage: **85.12%**

SKILLS

Programming Languages

Java, SQL

Cloud Computing

AWS Cloud Fundamentals

Database

MySQL

Tools & Technologies

Power BI, Excel, Git, GitHub, Streamlit, Google Colab

Soft Skills

Problem Solving, Analytical Thinking, Teamwork, Adaptability

Languages

English, Kannada, Tamil, Hindi

CERTIFICATIONS

- AWS Certified Cloud Practitioner – **Pursuing**
- Python for Data Science – **NPTEL**
- Data Engineering – **AWS Academy**
- DBMS Course – **Scaler**
- Machine Learning Foundations – **AWS Academy**

PROJECTS

Energy Management System for EVs and Battery Protection Apr 2025

- Developed a hardware-based energy management system for electric vehicles using **sensors** and **microcontrollers**.
- Implemented **real-time battery monitoring** to track voltage, current, and charging status.
- Designed charging and discharging control mechanisms to improve battery efficiency and performance.
- Integrated protection features against **overcharging**, deep discharge, and power fluctuations.

Road Accident Analysis – Excel & Power BI Jan 2025

- Analyzed more than **3 million Indian road accident records** using Excel and Power BI.
- Performed data cleaning, transformation, and preprocessing to improve data quality.
- Developed **interactive dashboards** and visualizations for accident trend analysis.
- Identified accident hotspots, high-risk zones, and major contributing factors.

AI-Based EV Performance Optimization Model Jan 2026

- Developed a **Machine Learning framework** for evaluating and optimizing EV performance.
- Trained predictive models using **Python**, **Google Colab**, and ML algorithms.
- Analyzed battery efficiency, energy consumption, and operational performance metrics.
- Built **interactive dashboards using Streamlit** for visualization and monitoring.

Natural Language Processing to SQL Using ML Mar 2026

- Developed a system that converts **natural language queries** into executable SQL statements.
- Utilized **BERT** and **Natural Language Processing (NLP)** techniques for intent recognition.
- Automated database querying by generating SQL commands from plain English input.
- Improved accessibility for non-technical users interacting with relational databases.

PUBLICATION

Research Publication ICOSSEC 2025

- Published a paper on **Smart Adaptive Power Control Architecture for Independent Mobility Systems**.
- Proposed adaptive power management techniques for intelligent mobility systems.
- Focused on **energy efficiency**, battery optimization, and smart control architectures.
- Presented at the **6th International Conference on Smart Electronics and Communication**.