# Immani Rama Venkata Sri Sai

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## About Me

I am Immani Rama Venkata Sri Sai currently pursuing a Bachelor of Technology (B.Tech) in Computer Science and Engineering at SRM University, where I am developing a strong foundation in software development, algorithms, and cutting-edge technologies. .

## Education

**SRM Institue Of Science and Technology** *Aug 2023 – May 2027*
*B.Tech in Computer Science and Engineering*

- CGPA: 9.0
- **Coursework:** Data Structures and Algorithms, Operating Systems, Database Management Systems, Artificial Intelligence Design and Analysis of Algorithms, Computer Organization and Architecture, IoT,Formal Language and Automata

## Experience

**Machine Learning Intern** – *Prodigy InfoTech (Remote)* July 1, 2025 – Present

- Currently undergoing a virtual internship in Machine Learning focused on developing real-world ML applications.
- Working on tasks involving data preprocessing, model building, and evaluation using Python and popular ML libraries.
- Building supervised learning models such as regression and classification pipelines for hands-on problem solving.
- Enhancing practical knowledge of key ML workflows including training, testing, and deployment.
- **Tools & Technologies:** Python, Scikit-learn, Pandas, NumPy, Matplotlib, Jupyter Notebook

## Projects

**Gesture Controlled Robot Using MPU-6050.** *In-House Project (Ongoing)*

- Building a gesture-based robotic system that allows users to control robot movement through natural hand motions using the MPU-6050 (accelerometer + gyroscope).
- The transmitter system uses an **Arduino Nano** connected to the MPU-6050 to capture and process real-time gesture data.
- Processed gesture data is wirelessly transmitted to the robot using the **Zigbee protocol (via XBee modules)** for long-range, low-power communication.
- The robot is powered by an **Arduino Mega**, which receives Zigbee signals and translates them into motor control commands via the L298N motor driver.
- Hand gestures such as tilt forward, backward, left, and right correspond to robot movement directions.
- Designed for applications in contactless control systems like smart mobility devices, surveillance robots, or assistive robotics.
- **Key Features:**
  - Real-time gesture recognition with orientation data from MPU-6050
  - Reliable wireless communication using Zigbee modules
  - Modular architecture with expandable sensor integration
- **Technologies and Components Used:** Arduino Nano, Arduino Mega, MPU-6050, Zigbee Modules, Motor Driver, Embedded C.

- **Status:** Successfully capturing and transmitting gesture data wirelessly; currently working on optimizing response time and improving motion stability.

**Face Recognition Attendance System Using AI Algorithms** *github.com/saiimmani*

- Developed an automated attendance system using real-time face recognition with Python, OpenCV, and the face_recognition library.
- Enabled accurate face detection and recognition using ML algorithms; supports capturing faces, marking attendance, and managing data via Pandas.
- Built a user-friendly GUI with Tkinter to facilitate registration and attendance tracking, improving efficiency and security in institutional environments.
- **Tools Used:** Python, OpenCV, face_recognition, Tkinter, Pandas, Pillow, Scikit-learn

**Next-Gen Fitness with AI Precision.** *github.com/saiimmani*

- Developed a Tkinter-based AI fitness tracker that securely manages user profiles, calculates BMI, and personalizes workout plans based on fitness goals.
- Integrated a Linear Regression model using `Scikit-learn` to predict daily calorie burn based on historical data.
- Features include secure user registration/login, expert health advice based on BMI, calorie logging, and profile update functionality.
- **Tools Used:** Python, Tkinter, NumPy, Scikit-learn, JSON

## Technical Skills

**Programming Languages:** C, C++, Java, Python, SQL, JavaScript

**Technologies:** Git, GitHub, RESTful APIs, Pandas, NumPy, Matplotlib, Scikit-learn, OpenCV

**Concepts:** Machine Learning, Deep Learning, Data Analytics, Natural Language Processing, Database Management Systems, Cloud Computing, Embedded Systems, Real-Time Problem Solving, Object-Oriented Programming (OOP)

**Soft Skills:** Communication, Team Collaboration, Analytical Thinking, Time Management, Problem Solving

## Certifications

- **Oracle Cloud Infrastructure 2024 Certified Foundations Associate** - Oracle
  Credential ID: 101174865OCI2024FNDCFA
- **AI Fundamentals with IBM SkillsBuild** – Cisco Networking Academy
- **Python Essentials 1** – Cisco Networking Academy

## Extracurricular & Volunteering

- **IEEE Computer Society Member**, SRMIST *Jan 2024 – Present*
- **Discipline Committee Member**, Directorate of Student Affairs, SRMIST *Sep 2024 – May 2025*
- **Discipline Committee Volunteer**, SRMIST *Aug 2023 – Sep 2024*
- **Volunteer**, National Service Scheme (NSS), SRMIST *Jan 2024 – May 2024*