# Panchadarla Varshith Sai Raj

#### **Contact Information:**

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## Developer. Engineer. Student

# Aspiring developer with a passion for Web Development and Artificial Intelligence/Machine Learning.

Skilled in building user-focused applications using modern front-end and back-end technologies. Eager to innovate and explore intelligent solutions at the intersection of web technology and AI to solve real-world challenges. Dedicated to continuous learning and creating impactful projects.

## Skills

Languages: C, C++, JavaScript, Python

Technologies/Frameworks: ReactJs, NodeJs, Express, GitHub, SQLite, Flask, Figma

Coursework: Data Structures, Object-Oriented Programming, Database Management Systems, Oper-

ating Systems, Computer Networks

# Experience

### Web Development Intern

ExternsClub

[June 1st, 2024 – July 31st, 2024]

- Designed and Developed: Created a "Digital Marketing Website" inspired by Schbang, showcasing creativity and adherence to industry standards.
- Technologies Mastered: Gained hands-on experience with HTML, CSS, JavaScript, Bootstrap, React, MongoDB, and Node.js.
- Problem-Solving: Enhanced debugging and troubleshooting skills to optimize web performance and user experience.
- User-Centric Development: Learned and implemented best practices for building responsive, user-friendly web applications.

## Web Development Intern

Oasis Infobyte

[February 10th, 2024 – March 10th, 2024]

- Developed Core Skills: Designed and implemented responsive web layouts using HTML, CSS, and JavaScript.
- Project Work: Contributed to the development of dynamic and user-friendly web applications, enhancing functionality and usability.
- Remote Collaboration: Effectively utilized virtual tools to coordinate with team members and deliver high-quality outputs within deadlines.
- Problem-Solving: Addressed and resolved technical challenges independently, fostering critical thinking and self-reliance.
- Professional Growth: Gained valuable insights into remote work dynamics, communication, and time management.

# **Projects**

### Hostel Management System (FULL STACK PROJECT)

StepCone Hackathon, GMRIT Rajam

- Built a web-based solution to streamline hostel management by automating key tasks.
- Key Features:
  - Student Registration & Room Allotment.
  - Attendance Tracking and Fee Management.
  - Complaint & Maintenance Requests.
  - Admin Dashboard for centralized control.
  - Warden System for communication.
- Impact: Improved hostel operations with a user-friendly interface.
- Link: https://lnkd.in/gbUMXrUD

## Fuel Scam Detector (Real-Time Monitoring and Fraud Detection System)

Personal Project

- Designed and implemented a robust system combining hardware and software to accurately measure and monitor fuel flow at high pressures, ensuring precision in real-time data acquisition.
- Developed a Real-Time Data Visualization Dashboard: Integrated real-time fuel flow data into a dynamic, user-friendly dashboard, leveraging Flask, HTML/CSS, and JavaScript to deliver seamless and interactive visualizations for live monitoring.
- Ensured High-Precision Performance: Achieved exceptional accuracy in fuel flow measurements under high-pressure conditions, demonstrating technical expertise in sensor calibration, system integration, and data processing.

# Data-driven application with advanced analytics and visualization (Data Science and Analytics)

Smart India Hackathon 2024 – 24-Hour Challenge

- The project involves processing and analyzing large datasets, integrating IoT and social media data, and applying AI/ML techniques for optimization.
- The use of AI/ML for route optimization is a key indicator of advanced data analysis.

Dashboard Development (Front-End + Back-End Integration):

- The Streamlit dashboard adds an interactive visualization layer, making it partially a Full-Stack Application because it combines:
  - A front-end interface (Streamlit for visualization).
  - A back-end database (SQLite for storage).

#### IoT Integration:

By incorporating IoT data, the project demonstrates skills in IoT Data Processing and Management.

Grade: 94.2%

### Education

#### 10th Grade

Dr. KKR Gowtham School, Visakhapatnam

#### 11th-12th

Sri Viswa Junior College, Visakhapatnam

#### Undergraduation, Computer Science Engineering

Gandhi Institute of Technology and Management, Visakhapatnam

GPA: 8.24

Grade: 92%

## Achievements

StepCone Hackathon: Secured 3rd Prize in the StepCone Hackathon held at GMRIT Rajam for developing an innovative Web Development Project - Hostel Management System.

## Community

## Research Member, Center of Autonomous Systems

GITAM University, Visakhapatnam

[2024 - Present]

- Built an Autonomous Car using Arduino, integrating line-sensing and ultrasonic sensors for movement tracking, object detection, and precise motor control to ensure efficient navigation.
- Currently working on a prestigious Autonomous Self-Parking Car project, funded with a substantial grant of INR 1,81,387, focusing on object detection and image processing using advanced AI/ML techniques.
- Presented project demos to distinguished groups, including **Indian Navy officials**, **Education minister**, professors, and school students visiting the research center.
- Organized and managed events, showcasing projects and inspiring visitors about advancements in autonomous systems.