

# SINGUPURAPU SAI CHARAN

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## Education

### B V Raju Institute of Technology

Bachelor of Technology in Computer Science

2022 - Present CGPA: 9.1/10

Narsapur, Telangana

- Relevant Coursework: Object-Oriented-Programming (OOPS), Operating Systems, Database Management Systems, Computer Networks, Data Structures and Algorithms

## Experience

### Indian Institute of Science Campus -National Institute of Advanced Studies

Aug 2024 - Sep 2024

Research Intern (Certificate)

Bangalore

- Analyzed satellite imagery, remote sensing data to quantify “Assessment of Soil Carbon Using Cloud Computing and Machine Learning across different regions”, enhancing the precision of soil health assessments by 70%.
- Collaborated with a multidisciplinary team to integrate environmental data with machine learning models, improving prediction accuracy by 70%.

## Projects & Publications

### GAN-Based Brain Tumor Detection | GANs, Python, Flask, Html, CSS, VGG19

(Project, Publication- [link](#))

- Developed a Flask-based web application integrating GANs and VGG19 for brain tumor detection.
- Achieved real-time analysis of brain scans and reducing diagnosis time by up to 80%, enhancing workflow efficiency for medical professionals.
- Developed and deployed deep learning models using TensorFlow and Keras, achieving a 25% decrease in false negatives.

### AI Project Management Dashboard | Reactjs, MySQL, Zustand, Node.js, Tailwind CSS

(Project- [link](#))

- Designed & built a full-stack AI project management dashboard, enabling 100+ users to track projects, manage secure authentication, and analyze real-time data 50% faster.
- Integrated an SQL-based backend for secure authentication and efficient data handling, managing more than 500 records with scalability.
- Optimized performance using Zustand for state management, lazy loading, and Framer Motion animations, ensuring a 80% faster, scalable, and responsive UI.

### AI-Powered Climate Change Adaptation and Mitigation

(Publication - [link](#))

- Researched AI-driven climate strategies, achieving 50% faster data processing and 15% better impact forecasting.
- Explored AI-powered carbon footprint optimization, enabling businesses to cut emissions by up to 30%

## Technical Skills

**Languages:** Python, Java, HTML5, CSS3, JavaScript, SQL

**Tools, Technologies:** Git, Github, Postman, Figma, Machine Learning Fundamentals

**Frameworks, Backend:** React, Node.js, Express.js, APIs

## Achievements

- Received first prize in TECHSURGE-2K24 "Prastuthi" Idea Pitching event held in BVRIT, Narsapur.
- Got selected as the best project of the year in Prelims of IEEE YESIST12 "KAUSHALYA" 2024 Bangalore and finalist at tunisia.
- Research got accepted in Scopus-indexed IJECE journal, highlighting advancements in GAN-based medical imaging for enhanced brain tumor detection.
- Published research findings demonstrating how AI enhances climate adaptation strategies, in IEEE ICCPCT kerala section, reducing environmental data processing time by 50%.

## Certifications

- Python Certification Course - Udemy
- Java Developer certification - Infosys Springboard
- Responsive Web Designing Foundation Certification - Infosys Springboard
- Database Programming with SQL - Oracle Academy