## Anjani Dedeepya Simpurapu

Junior Undergraduate

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## **Educational Qualifications**

Year	Degree	Institution	CGPA/%
2022-	B.Tech, CSE (Data	Nadimpalli Satyanarayana Raju Institute of	9.0/10.0
Present	Science) Honours	Technology, Visakhapatnam	
2022	ISC – XII	Alwardas Public School, Visakhapatnam	85.00%
2020	CBSE – X	Little Angels School, Visakhapatnam	94%

#### **Honors and Achievements**

- Awarded the Honors degree for securing a position in the top 10% of the Computer Science and Engineering (Data Science) department at NSRIT.
- 100% in CUET English exam(PCMB with English and General Knowledge).
- Stood 3rd in the national-level hackathon "HackToImpact" (GVPCE, Visakhapatnam).
- Stood 3rd in the national-level hackathon "Hack with Vizag" (NSRIT, Visakhapatnam).
- Stood 2<sup>nd</sup> in the ideathon competition conducted on "Engineer's Day." (NSRIT, Visakhapatnam)
- Recognised for exceptional performance in a paper presentation on "Software Engineering Association Day." (NSRIT, Visakhapatnam)
- Among the top 20 teams selected from 500 for the mentoring program under "Enterprising Bharat" (which is sponsored by Grameena Incubation Center).
- Stood 2<sup>nd</sup> in the ideathon competition conducted by multiple departments (CSE, CSM, CSD, ECE, EEE, Mech).
- Stood 1st in the Internal Smart India Hackathon.
- Stood 1st in Project Expo conducted for "Technimble 2k25".

## Work Experience

### **Demy Software Solutions**

Visakhapatnam, India

JavaScript Intern

June 2024 - July 2024

- Developed interactive, responsive web applications using JavaScript, HTML, CSS, React.js, and Node.js, improving user engagement by 30% and overall app performance by 25%.
- Optimized website speed and stability by reducing load times by 40%, integrating RESTful APIs for seamless data flow, and decreasing bug reports by 20% through effective debugging.
- Participated in code reviews and team collaborations, ensuring 95% adherence to coding standards and contributing to a 15% boost in development efficiency.

#### Agnirva by ISRO

Remote, India

Space Research Intern

Oct 2024 - Dec 2024

- Worked on aerospace projects under ISRO Agnirva, gaining hands-on experience in the space sector.
- Enhanced problem-solving, adaptability, and technical expertise for future opportunities in space technology.
- Demonstrated proactive learning and resilience while contributing to innovative aerospace solutions.

## Skills

**Programming Languages:** Python, C Programming, R Programming, Java, JavaScript, SQL, HTML, CSS

**Tools & Technologies:** GitHub, Microsoft Office, Microsoft Power BI, ChatGPT, Google AI Studio, Google Gemini, Google Teachable Machines, Google Colab

#### Frameworks and Libraries:

- **1. Machine Learning**: Linear Regression, Logistic Regression, Support Vector Machine (SVM), Decision Trees, Random Forests, K-Means Clustering, XGBoost, Scikit-learn, NLTK, Gen AI, Artificial Intelligence (AI)
- **2. Deep Learning**: TensorFlow, PyTorch, Keras
- **3. Web Development**: Flask, Django, Node.js, React.js, Amazon AWS **Specialisations & Domains:** Machine Learning, Natural Language Processing (NLP), Data Science, Internet of Things (IoT), Robotic Process Automation (RPA)

## Miscellaneous

- As a member of Google Developers Group(Vizag), IEEE and ISTE, three of the most prestigious professional organisations for engineers and technologists, I have been exposed to cutting-edge developments in the field.
- Have published a review paper on "Expanding Cybersecurity with Advanced Machine Learning" in IJIRCCE.
- I completed 8 weeks of community service, raising awareness about "Understanding and Addressing Health Issues in Pre-Teens".
  - 1. Conducted a comprehensive survey on the health, medications, and dietary habits of pre-teens in a village.
  - 2. Attended a government health camp and distributed medicines to the underprivileged.
  - 3. Organized an awareness camp at a local high school, benefiting the broader community.
- I am honoured to be in the **top 10% of my department** at **NSRIT** in terms of academic performance, earning an **Honours degree**, which reflects my consistent excellence and dedication to my studies
- Attended various workshops on Robotic Process Automation, Power BI, Generative AI and Interpersonal and Intrapersonal Communication.
- Did a certification course on Programming in Python including Django.
- Served as Class Representative for two consecutive years, demonstrating leadership, communication skills, and responsibility in representing my peers.
- Participated in a workshop on "Generative AI Mastery" conducted by IIT Hyderabad.
- Have a good knowledge of Machine Learning tools like Roboflow, Hugging Faces and Gymnasium Documentation.

## **Projects**

#### 1. Brain Stroke Prediction Using ML Models

- Developed a machine learning model to predict brain stroke risks using parameters such as age, sex, BMI, and blood sugar.
- Implemented algorithms like Random Forest, Naive Bayes, XGBoost, and Decision Tree for prediction accuracy.
- Designed an interactive web application that provides personalized health recommendations based on user input.
- Employed data preprocessing techniques and model evaluation to achieve high prediction reliability.

# 2. INSAAF (Interactive System for National Adjudication and Assistance Framework)

- Automated various legal procedures, featuring an AI-driven legal chatbot for user assistance.
- Provided 9 essential services, including eFiling, case status, and advocate search, enhancing user accessibility.
- Integrated Blockchain technology to ensure data security and privacy of personal information.
- Simplified the writ generation process through a user-friendly
   Q&A-based interface.

#### 3. POSTFIX

- Developed an **NLP-based application** to address incomplete delivery and missing address details.
- Leveraged NLTK for parsing and resolving address-related issues in real-time.
- Enhanced the efficiency of logistics and delivery systems by ensuring accurate address recognition.
- Applied advanced text processing methods to clean and standardise address data.

#### 4. NAV Analysis

- Analyzed historical stock market data and built a system that updates the dataset daily.
- Displayed trends using line graphs and ranked the top 5 performing funds based on Sharpe Ratio and NAV.
- Integrated a SIP calculator to help users plan investments effectively.
- Ensured real-time data updates and seamless data visualization through an automated daily data-fetching mechanism.

#### 5. Smart City IoT Project

- An innovative IoT-based smart city project featuring:
- Automated smart street lights with light intensity sensors to save energy.
- **EV charging points** are powered by solar energy from street lights, promoting sustainability.
- Smart bus tracker using GPS and QR codes to track buses in realtime.
- **Stormwater detection** to alert authorities and residents during high water levels.
- Self-maintenance system for street lights, notifying authorities of malfunctions.

#### 6. Mental Health Prediction

- Utilized the **DASS-42 questionnaire** to assess mental health risk factors and predict potential future issues.
- Applied a range of machine learning algorithms to identify patterns and predict mental health outcomes.
- Created a user-friendly interface to provide mental health assessments and personalized suggestions.
- Focused on early intervention and preventive measures for mental health conditions.

#### 7. WISER: Women's Intelligent Screening & Early Risk

- Leveraged health indicators like age, BMI, stress levels, and menstrual irregularities to assess early menopause and perimenopause risk.
- Applied unsupervised learning models, including Hierarchical Clustering and GMM, to group users based on hidden health patterns.
- Achieved the highest clustering accuracy of **95%** using Gaussian Mixture Models for risk profiling.
- Designed a user-friendly system to deliver personalized, explainable insights through visualisations like dendrograms and cluster plots

#### Relevant Coursework

Linear Algebra and Differential Equations (0)

Operating Systems (A+)

Fundamentals of Computer Science (A+)

Partial Differential Equations and Vector Calculus (A+)

Data Structures using 'C'

Digital Logic Design

Programming with Python (A+)

Cryptography and Network Security

(0) and (A+) refers to the grades scored in that subject.

Design and Analysis of Algorithm Database Management Systems

Mathematical Foundation of Computer Science (A+)

Managerial Economics and Financial Analysis

**Probability and Statistics** 

Programming for Problem Solving using 'C' (0)

R Programming (0)
Data Visualization

Computer Networks (A+)

Foundations of Data Science (O) Theory of Computation

Big Data

Machine Learning

Modern Software Engineering

Introduction to Tableau (A+)

Discrete and Inferential Statistics (A+)
Data Warehousing and Data Mining

## Languages Known

English (Full Language Proficiency) Hindi (Full Language Proficiency)

Telugu (Full Language Proficiency) Bangla (Limited Proficiency) Punjabi (Limited Proficiency)

#### **Profile Links**

Github: https://github.com/dedeepva07

LinkedIn:

https://www.linkedin.com/in/anjanidedeepya-siripurapu-a2a202281/