Tanuja Komperla

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EDUCATION

Bachelor of Technology [B. Tech] [Computer Science and Engineering] **July 2021 – Apr 2025**

- GVP College of Engineering for Women, Andhra Pradesh [7.74 / 10.0 CGPA] [First Class]

12th Class[Intermediate][MPC] **June 2018 – Mar 2020**

- Pragathi Junior College [9.13 / 10.0 CGPA]

10th Class[SSC] **July 2017 – Mar 2018**

- Montessori English Medium High School [9.8 / 10.0 CGPA]

EXPERIENCE

ExcelR EdTech Pvt. Ltd. | Andhra Pradesh State Council of Higher Education

❖ **Data Science & Machine Learning Intern** **June 2024 – Aug 2024**

- Formulated a comprehensive approach resulting in the creation of four distinct models assessing different aspects influencing brain strokes; each model was fine-tuned based on hyperparameter optimization methods leading to improved prediction reliability.
- Processed comprehensive datasets of demographic and medical histories from more than 1,200 patients; pinpointed critical interactions influencing stroke risk factors with insights leading to actionable recommendations.
- Developed proficiency in Python, Pandas, NumPy, and Scikit-Learn to create machine learning models; utilized data visualization tools to present findings that informed future healthcare strategies impacting over 1,200 patients.

TRAININGS & CERTIFICATES

- ExcelR EdTech & Andhra Pradesh State Council of Higher Education – Data Science & Machine Learning
- CodeChef – Python Certification
- Infosys Springboard – HTML Certification
- HackerRank – Python (Basics) Certification
- Kaggle – Python Certification
- MATLAB – Certified in MATLAB
- Wipro TalentNext – Certified in Software Development
- ICT Academy – UI Development Certification

PROJECTS

CROP FERTILIZER ANALYSIS & PREDICTION

- Developed a Decision Tree Regressor model to recommend optimal fertilizers based on environmental and soil factors, improving crop yield.
- Generated an R^2 score of 0.92, ensuring high accuracy in fertilizer predictions to assist farmers in improving productivity.
- Applied data preprocessing, feature selection, and model evaluation techniques to enhance prediction accuracy.

BRAIN STROKE RISK PREDICTION

- Designed a Logistic Regression model to assess stroke risk based on patient health factors, including age, hypertension, and lifestyle habits.
- Preprocessed and visualized patient data to uncover significant correlations, improving model interpretability.
- Achieved a 94% accuracy in predicting stroke risk, enhancing early detection and preventive care strategies.

SKILLS

- Python
- HTML & CSS
- C++
- Java
- SQL
- JavaScript
- SDLC
- Machine Learning
- GitHub
- Analytical Thinking
- Quick Learning
- Detail-Oriented

ACHIEVEMENTS

- **Core Hostel Representative, B.Tech Hostel**

  Facilitated communication between students and administration by organizing monthly feedback sessions, improving response times to hostel-related issues by an average of two days through structured dialogue.
- **Photography Contest – 3rd Place**

  Captured and submitted a photograph for a prestigious college-level competition, earning recognition with 3rd place honors while showcasing an ability to convey narratives through visual storytelling.
- **CSI (Computer Society of India) Member**

  Active participant in tech - related discussions, workshops, and networking events.
- **Cosengers Club – Event Organizer & Team Member**

  Coordinated over 10 college events annually, enhancing participation rates by 30% through effective marketing strategies and fostering collaboration among diverse student teams.