Tanishka Hegde

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ABOUT ME

I am a Bachelor's graduate in Data Science with first-class honors. I developed strong skills through relevant academic and personal projects, enhancing both practical and analytical abilities. With a genuine interest in data science, I aim to further expand my knowledge and contribute to society in an impactful way.

EDUCATION AND TRAINING

Bachelor of Technology in Computer Science and Engineering (Data Science)

Gandhi Institute of Technology and Management (GITAM) [30/06/2021 – 30/04/2025]

City: Hyderabad | **Country:** India | **Website:** https://www.gitam.edu/ | **Field(s) of study:** Computer Science and Engineering (Data Science)

Mathematics : Linear Algebra, Calculus, Probability & Statistics, Discrete Mathematics
Systems & Architecture: Operating Systems, Computer Architecture, Database Management Systems (DBMS), Cloud Computing.
Networking & Communication: Computer Networks, Wireless Communication Technologies.
Software Engineering: Data Structures & Algorithms, Object-Oriented Software Engineering (OOSE), Automata Theory & Compiler Design.
AI & Data Science: Artificial Intelligence, Deep Learning, Neural Networks, Big Data Analytics, HCI.
Programming Proficiency: Python, Java, R, SQL.

SKILLS

Programming & Scripting

Python / NumPy / Pandas / Seaborn / Scikit-learn / R / Java / SQL

Data Science & Machine Learning

Machine Learning / Neural Networks / Exploratory Data Analysis (EDA) / Data Preprocessing / Deep Learning / Statistical Analysis

Database and Tools

MySQL / PostgreSQL / pgAdmin4 / Power BI / Git / GitHub / Matplotlib / STAR UML / VS Code

Web & Software:

Object Oriented Programming / HTML / CSS / JavaScript / SDLC / Data Visualization

WORK EXPERIENCE

🏢 *CSRBOX (IBM SkillBuild Program)* – Hyderabad, India

Data Analytics Intern

[24/06/2024 – 05/08/2024]

- Served as SPOC for a five-member team, coordinating communication and tasks under mentor guidance.
- Analyzed gender inequality datasets across multiple countries, focusing on education, employment, and pay equity indicators.
- Performed data cleaning, preprocessing, and visualization using Python (Pandas, Matplotlib, Seaborn).
- Applied basic statistical analysis to identify trends and patterns supporting data-driven insights.
- Developed data storytelling and reporting aligned with UN Sustainable Development Goals (SDGs) in a mentor-guided analytics workflow.

🏢 *Exel Rubber Limited* – Hyderabad, India

Data Analytics Trainee

[20/05/2024 – 05/07/2024]

- Led "Integrated Revenue and Customer Dynamics Analysis" project using proprietary datasets.
- Performed data cleaning, transformation, and SQL querying (PostgreSQL) for business insights.
- Built Power BI dashboards tracking operational KPIs and sales performance.
- Delivered actionable reports under mentor guidance, respecting enterprise data policies.

🏢 *Oasis Infobyte* – Hyderabad, India

Python Development Intern

[03/2024 – 04/2024]

- Developed simple Python applications as part of assigned internship tasks (BMI Calculator, Password Generator, Weather App).
- Integrated OpenWeather API to enable real-time data retrieval and dynamic application output.
- Applied modular programming principles, debugging, and basic testing to improve code structure and reliability.
- Implemented core software development practices through guided, task-based projects.
- Strengthened problem-solving and coding skills through hands-on Python development.

ACADEMIC PROJECTS

Semantic Segmentation of Self-Driving Cars Using Deep Learning and Computer Vision

Final Year Capstone Project

- Implemented a semantic segmentation pipeline using DeepLabV3 to perform pixel-wise classification of road elements such as vehicles, pedestrians, lanes, and traffic signs.
- Worked with the CamVid dataset (urban driving scenes) involving data preprocessing, normalization, and augmentation techniques to improve model generalization.
- Applied transfer learning with a pre-trained DeepLabV3 architecture using atrous convolutions and ASPP for multi-scale feature extraction.
- Evaluated model performance using Intersection over Union (IoU) and pixel accuracy metrics to assess segmentation quality.
- Analyzed challenges related to low-light conditions, occlusions, and computational constraints, and studied optimization strategies for real-time applicability in autonomous driving systems.

Image Captioning Using GRU and Attention Mechanism

- Designed an image captioning model using GRU and attention mechanisms to generate context-aware descriptions.
- Trained and evaluated the model on standard image–caption datasets to analyze performance and accuracy.
- Explored preprocessing techniques and hyperparameter tuning to improve model effectiveness.

Breast Cancer Detection Using CNN

- Built a CNN model to classify breast cancer images with 87% accuracy on 2,000+ samples.
- Applied data preprocessing to reduce noise and improve precision.
- Evaluated performance using confusion matrix, ROC curve, and F1 score.

Link: https://github.com/Tanishka-001/Breast-Cancer-Detection-Using-CNN

CERTIFICATIONS

[IBM, 08/01/2025]
Machine Learning with Python Gained skills in Python, supervised & unsupervised learning, regression, classification, decision trees, dimensionality reduction, predictive modeling, and applied machine learning. https://www.coursera.org/account/accomplishments/certificate/PZF8C4WXZVLW

[IBM , 18/10/2023]
Data Analysis with Python Gained skills in Python, Pandas, NumPy, data visualization, and basic statistical analysis.https://www.coursera.org/account/accomplishments/certificate/LP7DTNG7WZ6E

[University of California, Irvine]
Intro to Analytic Thinking, Data Science, and Data Mining Learned data exploration, analytic reasoning, and introductory data mining technique.https://www.coursera.org/account/accomplishments/certificate/S7KMQX5N4ZVM

LANGUAGE SKILLS

Mother tongue(s): Tulu

Other language(s):

English
LISTENING C1 **READING** B2 **WRITING** B2
SPOKEN INTERACTION B2

German
LISTENING A2 **READING** A2 **WRITING** A2
SPOKEN INTERACTION A2