Vedant Marodkar

B.Tech - 3rd Year
Data Science and Artificial Intelligence
Indian Institute of Technology, Bhilai
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⭘ VDNT
in Vedant Marodkar
Portfolio

EDUCATION

•**INDIAN INSTITUTE OF TECHNOLOGY, Bhilai** — *2022-Present*
B.Tech - Data Science and Artificial Intelligence (May 2026 - Estimated Graduation) — CGPA: **8.84**

•**Dr. Babasaheb Ambedkar College, Nagpur** — *2020-2022*
Class XII — Percentage: **92.3**

•**T.B.R.A.N.'s Mundle English Medium School, Nagpur** — *2009-2020*
Class X — Percentage: **97.2**

PROJECTS

•**Dynamic Grocery Delivery Route Optimizer Using Q-Learning**
Optimized delivery routes using reinforcement learning. (GitHub Repository)

– Developed a Q-learning model to optimize multi-source grocery delivery routes, reducing both cost and distance.
– **Tools**: Python, NumPy, MatplotLib, itertools, Seaborn, Pandas

•**Multilingual Assistive Model for Visually Impaired Users**
Created an inference-based model for visually impaired users, integrating image captioning, translation, and text-to-speech. (GitHub)

– Integrated BLIP for image captioning, IndicTrans2 for multilingual translation, and gTTS and Facebook's MMS-TTS for audio narration.
– **Tools**: Pytorch, Transformers, MarianMT, gTTS

•**Plant Disease Detection using CNN**
Trained a CNN model on a 55GB dataset of plant images. (GitHub Repository)

– Trained a deep CNN on 20+ plant species' images, deploying the model on IIT Bhilai's Big Data clusters.
– **Frameworks**: Hadoop HDFS, Apache Spark, BigData Cluster
– **Tools**: Pyspark, Tensorflow, Keras, OpenCV

•**Breaking the Silence: Rape Statistics in India**
Performed an in-depth analysis of rape statistics in India. (GitHub Repository)

– Conducted EDA on rape data from NCRB and Twitter, producing visualizations and insights.
– **Tools**: Python, Seaborn, Pandas, NumPy, plotly.express, MatplotLib

SKILLS

Languages: C/C++, Python, HTML , CSS, Latex
ML Libraries, Frameworks & Architectures: Tensorflow, Huggingface, Roboflow, XGBoost, Apache Spark, Transformers , scikit-learn, scipy, , nltk, spacy, Stanza, NumPy, Pandas, Keras, Seaborn, Pandas, NumPy, plotly.express, MatplotLib, BeautifulSoup
Database & Deployments: Linux, Google Cloud, AWS, Docker.
Softwares & Tools: Visual Studio Code, Git, Jupyter, Google Colab, Matlab, Amazon SageMaker, Docker, GitHub
Coursework: Architecture for Management of Large Dataset, Machine Learning, Natural Language processing, BigData Lab, Artificial Intelligence, Computer Network, Discrete Mathematics-I, Operations Research,Data Structures, Algorithms-I, Data Analysis and Visualisation, Probability and Statistics, Calculus, Linear Algebra
Soft Skills: Teamwork, Communication, Strong work ethic, Problem-Solving, Time Management

POSITIONS OF RESPONSIBILITY

•**Core Member,** Data Science and Artificial Intelligence Club, IIT Bhilai — *11/2022 - 04/2023*
•**Member,** Epsilon, Robotics Club of IIT Bhilai — *11/2022 - 04/2023*

COURSES CERTIFICATIONS

−AZ-900: Microsoft Azure Fundamentals — *2023*