

ACADEMIC DETAILS				
Degree	Specialization	Institute	Year	CPI/%
B.Tech.	Computer Science And Engg.	IIT Gandhinagar	2022-Present	9.06/10
Class XII	Physics, Chemistry, Maths	IBS Global Academy, Ujjain	2021	90/100
Class X		St. Paul's Convent, Ujjain	2019	96.5/100

- INTERNSHIP EXPERIENCE
- Summer Research Internship Program,Computer Vision Lab, IITGN

[May 2024 - Present]

(Advisor: Prof. Shanmuganathan Raman, IIT Gandhinagar)

    - Efficient Generative Adversarial Networks through Knowledge Distillation | Project Link
      - Implemented knowledge distillation techniques for Generative Adversarial Networks (GANs) to develop compressed and efficient models, reducing computational requirements while maintaining performance.
    - Generative Adversarial Networks for Image Translation | Project Link
      - Developed and trained GANs for the image translation task, converting satellite imagery to detailed maps. Improved the quality and accuracy of the generated maps using advanced training methodologies.

- PROJECTS
- Strategic Urban Greening using Semantic-Segmentation of Satellite Imagery

[January '24 - April'24]

(Prof. Shanmuganathan Raman, IIT Gandhinagar) | (working on manuscript) | Project Link

    - Utilized Unet for semantic segmentation of satellite imagery to identify vacant lands for potential urban greening.
    - Analyzed urban heat island (UHI) effects by integrating Land Surface Temperature (LST) data with satellite imagery.
    - Developed an algorithm to select optimal locations for urban forestation aimed at mitigating UHI effects.
  - Machine Learning Based Plant Electrophysiological Signal Study

[August '23 - November '23]

(Prof. Subramanian Sankaranarayanan, IIT Gandhinagar) | Project Link

    - An interdisciplinary project involving machine learning, plant physiology, and signal processing, to explore and understand the electrophysiological responses of tobacco plants to stimuli (wound-induced variation potentials).
    - Employed signal measurements, processing, and machine learning algorithms to interpret plant electrical data.
    - Developed an accurate SVM-based ML algorithm detecting plant injury onset and variation potential duration.
  - Numerical Analysis Of Ideological Outreach In Social Media Networks

[August '23 - September '23]

(Prof. Dilip Srinivas Sundaram and Prof. Akshaa Vatswani, IIT Gandhinagar) | Project Link

    - Developed a numerical simulation model to analyze the dynamics and patterns of ideological outreach in diverse social media networks using numerical methods and network modeling.
    - Devised and implemented a bespoke mathematical model and algorithm from inception, yielding promising outcomes in understanding ideological dissemination across social media networks.
  - Decoding US Higher Education: Economic Analysis and Perception in 1995

[March'23-April '23]

(Prof. Shanmuganathan Raman, IIT Gandhinagar) | Project Link

    - Analyzed 1995 US higher education using Python, merging datasets to extract insights crucial for university selection, leveraging skills in data analysis, visualization, statistics, and domain knowledge.

- ACHIEVEMENTS
- Dean's List Semester I, II, and III: For excellent academic performance, consistently securing 9+ CPI.
  - Selected for Amazon Summer School:Currently attending Amazon Summer School on Machine Learning and AI | 2024
  - Project Featured In Media: Team member of project "Guardians: Real-time Child Abuse Detection System," recognized for impactful societal contribution.
  - NTSE Scholar: Ranked in the top 2000 students from 1,000,000 applicants through two stages of selection in the National Talent Search Examination (NTSE). | 2019
  - Qualified Regional Mathematics Olympiad (RMO): Ranked among the top 30 amongst the state in the Regional Mathematics Olympiad, qualified for INMO. | 2020
  - JEE Advanced: AIR 6885

- TECHNICAL SKILLS
- Programming Languages: Python, C, C++, MATLAB
  - Data Analysis and Machine Learning: Practical experience in Machine Learning, Deep Learning and Generative AI for Computer Vision, including VAE, and GAN . Python Libraries (Numpy, Pandas, Matplotlib, Scikit-learn, Keras).
  - Remote Sensing: Basics, Google Earth Engine, Satellite Image Processing, Geospatial Analysis.
  - Electronics And Circuit Design: PCB Designing, LTSpice (Analog electronic circuit simulator), Arduino Micro-Controller, DAQ for electrical data
  - CAD And Modelling: Autodesk Inventor, Fusion 360