

Tanvi Modi

M. Tech in Cybersecurity

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Degree	University/Institute	Year	CGPA
M.Tech in CyberSecurity	Pandit Deendayal Energy University	2025	9.22
Bachelor of Technology – Computer Science and Engineering	Pandit Deendayal Energy University	2023	9.71
Diploma – Computer Engineering	Government Polytechnic Ahmedabad	2017	9.41

SKILLS

Programming Languages: Python, Java, PHP, HTML/CSS, **Data Visualization Tools:** MS Excel, Power BI, **Database Management Systems:** SQL, AWS, **AI Frameworks and Libraries:** TensorFlow, Keras, PyTorch, Scikit- learn, Seaborn, Pandas, Matplotlib, SciPy, NumPy, **AI Algorithms:** Regression, Classification, Clustering, Decision Trees, Random Forest, SVM, **Documentation, Tools:** MS Office, Figma, **Software's:** VS Code, PyCharm, Eclipse, NetBeans, Jupiter Notebook, Google Colab, Git, PyCharm, **Additional skills:** Leadership and Teamwork, Critical Thinking, Problem-Solving, Project Management.

INTERNSHIPS

Summer Research Internship at IIT Gandhinagar

(May '24 - July '24)

Guide: Dr. Abhishek Bichhawat (Computer Eng. Dept)

- Developed a Python code that scrapes all data from the Play Store and generates the CSV file for further analysis using Machine Learning.

Frontend Developer Intern at Oil and Natural Gas Corporation

(June '22 - July '22)

- The team in which I was added consisted of 4 other interns and the project was on “Complaint Management System”.

Intern at INFOVIRTECH pvt. Ltd

(May '24 - July '24)

- During the internship, I got to know about various software and programs that is useful for my future and I can improve my command on Cyber Security domain.
- At the end of the internship, I have to submit a project that is related to the cyber security domain. So, I choose the ADVANCED KEYLOGGER USING PYTHON.

PROJECTS

Efficient anomaly detection in network traffic with Yara rules and machine learning techniques.

(Aug'24- May'25)

Guide: Dr. Debabrata Swain (Computer Science and Eng. Dept)

- Implementing Yara rules on the Network that can find real-time Malware or any other malicious activities that can be done on the Network.
- Comparing MACHINE LEARNING techniques, YARA RULES, and Traditional ways to find malicious activity and showing which one should be useful in a particular scenario.

Enhancing the Security of IoT Wireless Sensors with Strong Three-factor User Authentication

(Aug '24- Dec '24)

Guide: Dr. Nishant Doshi (Computer Science and Eng. Dept)

- In this Project, I reviewed more than 10 authentication schemes, and found there is any vulnerabilities that can be exploit in the IoT system.
- Finding the vulnerabilities, I compared them with existing schemes and provided a thorough analysis on how my scheme is better than the previous one.

Image Privacy Protection

(Jan '24- June '24)

Guide: Dr. Manish Paliwal (Computer Science and Eng. Dept)

- The proposed application aims to enhance privacy and consent in social media photo sharing by preventing the unauthorized dissemination of individuals' images.
- It includes Enhanced Privacy, Respect for Consent, Prevention of Unintentional Sharing of image and Compliance with Privacy Regulations.
- As in output, there is an API that can add on social media and prevent the unintentional sharing of images. And As an Machine Learning algorithm, I used total five algorithm but ResnetV1 provides best accuracy in recognition 97%.

A Detailed Exploration to the Cloud Forensics Challenges and Solutions

(Jan '23-June '23)

- This contains review about cloud forensic challenges, Tools and techniques. Also, gives brief introduction about one of the best cloud forensic model FROST.
- For the FROST, I analyzed 5 papers that previously worked on the FROST and found that there is some difficulty to implement. So, gives optimal solution for implementing in cloud.
- Also present this paper in ICISPD 2023.

An Optimal Clustering Approach For Milk Dairy Networking

(Jan '23- June '23)

Guide: Dr. Manish Paliwal and Dr. Aditya Shastri (Computer Science and Eng. Dept)

- For this project, I gathered the one-day data for milk transportation with various locations and found the important data from the file.
- Implement the various algorithms, from which K-means and Hierarchical Clustering Algorithms provide higher accuracy for the finding route for the tanker.
- After clustering, implement a traveling salesman for all the possible routes in the cluster and also use the most optimal path for transportation.

Medical Domain Data Security using Encryption & Steganography

(June '22-Nov '22)

Guide: Dr. Manish Paliwal (Computer Science and Eng. Dept)

- For the image steganography, the dataset image was taken from Kaggle, and for the hide the data we made txt files for hiding in the images.
- As an outcome, we made an application that is used to hide the encrypted data in the image using the image steganography method. To achieve steganography, we use the LPS technique and use AES to achieve data encryption.
- As we do the encryption the size of the image pixel is not changed.

CERTIFICATIONS

- Certificate for Presenting a paper in the 5th International Conference on Computer Vision and Robotics (CVR 2025)
- Certificate for publishing a paper in the 5th International Conference on Data Science, Computation, and Security (IDSCS-24)
- Paper has been accepted for publication in the International Journal of Internet Manufacturing and Services (IJIMS), an Inderscience publisher, UK.
- Certificate for publishing a paper in Conference organized by the INDIACOM-2024 10th International Conference.
- Present a Paper in International Conference on Information Security, Privacy and Digital Forensics (ICISPD 2023)
- Certificate for publishing a paper in Conference organized by the INDIACOM-2023 10th International Conference.

PUBLICATIONS

[C.1] T. Modi, et al. (2024). A Comprehensive Exploration to Cybercrimes Investigation Techniques. In 11th International Conference on Computing for Sustainable Global Development (INDIACOM), pp. 1046-1053. IEEE. 18 April 2024, Delhi.

[C.2] T. Modi, et al. (2023). Enhancing Medical Domain Data Security using Inbuilt Data Encryption and Steganography. In 10th International Conference on Computing for Sustainable Global Development (INDIACOM), pp. 181-187. IEEE. 04 May 2023, Delhi

[C.3] Modi, T., Swain, D., Kumar, M., Bhilare, A., Upkare, M. (2025). An Intelligent Spam Email Detection System Using Machine Learning. In: Shukla, S., Sayama, H., Tiwari, K., Kureethara, J.V. (eds) Data Science and Security. IDSCS 2024. Lecture Notes in Networks and Systems, vol 1355. Springer, Singapore. https://doi.org/10.1007/978-981-96-4883-2_2

EXTRACURRICULAR

- **Social Training at NSS (National Service Scheme):** Participated in various social training programs organized by NSS, including blood donation drives, awareness campaigns, and community service activities.
- **Badminton and Travelling:** In my free time, playing Badminton with friends, and exploring new places through travel.