Varun Modi

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Education

International Institute of Information Technology, Hyderabad, M. Tech. CSIS — July 2025 – June 2027
- CGPA: *ongoing*
- **Coursework:** Computer Science and Information Security

Sardar Vallabhbhai National Institute of Technology, Surat, B. Tech. ECE — December 2021 – July 2025
- CGPA: 7.22
- **Coursework:** Communication Networks, Ad Hoc Wireless Networks, Wireless Mobile Communication, VLSI Design, Deep Learning, Professional Ethics, Economics and Business Management, Innovation, Incubation and Entrepreneurship.

Experience

Sardar Vallabhbhai National Institute of Technology, Surat, 6-month Internship — January 2025 - May 2025
- Developed Python Libraries to compute decomposition of complex signals like speech into simpler modes using Adaptive Variational Mode Decomposition (AVMD), Variational Mode Decomposition (VMD) and Empirical Mode Decomposition (EMD).
- Extracted useful features from decomposed signals to feed classifier algorithms to achieve high accuracy emotional classification of input speech signals
- Datasets Used: RAVDESS, EMO_DB, SAVEE. Classifiers Used: Support Vector Machine, Dense Neural Network.
- Achieved above 90% accuracy in classification.

Projects

Machine Learning Based Speech Emotion Recognition
- 6-month Internship Project

Password Manager (CySafe)
- Data processing and encryption using Python and Storage using MySQL. Graphical User Interface using Tkinter.

Cryptography (Mini Projects)
- XOR-based Stream Cipher, Columnar Transposition Cipher, Rivest-Shamir-Adleman Algorithm, Shift Cipher, Monoalphabetic Cipher, Playfair Cipher

Skills

Communication Networks: OSI Model, TCP/IP Model, MAC, LAN, Ethernet, IP Addressing, Routing, Wireless Networks, Protocols, Cryptography

Programming and DBMS: Python, MySQL

Leadership and Team Management

Certificates

Introduction to Cybersecurity Tools & Cyber Attacks (https://coursera.org/verify/QDN85R7AY8BJ)

Cybersecurity Roles, Processes & Operating System Security (https://coursera.org/verify/UAU2UJSAJMZF)

Compliance Framework & System Administration (https://coursera.org/verify/RKKK22ZQ6GRZ)

Achievements

- Ranked 81 all-India in PGEE Examinsation.
- Among top 1.5% students All India in JEE (Mains) Examination.
- Successfully navigated complex uncertainties as the class representative.

Co-curricular

Volunteer, National Service Scheme – SVNIT, Surat — April 2022 – April 2024
- Contributed 240 hours of community service. Managed documentation and finance.

Class Representative, B. Tech. ECE – Batch of 2025 — August 2023 – August 2025

Correspondent, Renesa, SVNIT, Surat — February 2022 – January 2023
- Wrote and Edited Articles for the Official Institute Magazine. Managed Financial Records.