

## Educational Qualification

Degree	Institution	CPI/%	Year
M.Tech	IIT Gandhinagar	8.71	2022 - 2024
B.Tech (CSE)	Sri Venkateswara University	8.68	2017 - 2021
Class XII	Sri Siddhartha Junior College(BIEAP)	98.8%	2015 - 2017
Class X	SPVB High School(BSEAP)	9.8	2014 - 2015

## Projects

### **FlexTree: Gaze-Controlled Interfaces with Context-Based Letter and Word Predictions** [Jan 2023 - Present]

- Designed a multi-level tree-based virtual keyboard that supports disabled and Speech-impaired people.
- Integrated Prediction by Partial Match (PPM) algorithm for letter prediction to enable quick and easy typing.
- Conducted experiments with Mouse and Eye-Tracker and compared the results with the Dasher software
- Obtained a typing speed of 17.75 and 12.59 letters per minute using the mouse and eye tracker with 1.5 sec dwell time, respectively, nearly 225% times more than that of the Dasher with both input devices.

### **Helmet Detection and License Plate Extraction Using Yolov3 and Darknet** [Feb - June 2021]

- Trained a real-time object detection algorithm - YOLOv3 model on 90% of the dataset of 4000 images using the Darknet Framework, achieving an impressive 87.49% average precision on a 10% test subset.
- Created a new dataset of 2800 carefully curated and manually labeled images using Labelling software to achieve a remarkable 97.51% average precision on a 10% subset of the training data.

### **ML Projects: Airfoil self-noise Prediction, Breast Cancer Detection, Iris Flowers Classification, House Price**

### **Prediction, Loan Prediction, Stock Price Prediction, etc.** [Jan - May 2022]

- Executed ML projects by implementing some algorithms from scratch and evaluated their performance.
- Utilized appropriate models based on the project, resulting in valuable insights and practical experience.

### **A web app for making and maintaining personal 'ToDoLists' Using Django** [Aug 2020]

- Developed a simple web app where users can log in to create and view their tasks and subtasks.
- Leveraged my knowledge and interest in Python to gain additional skills such as Django, SQLite3, and HTML.

## Paper Publications

- Submitted Paper titled "Predictive Tree-based Virtual Keyboard for Improved Gaze Typing" to IEEE SMC 2024.

## Positions of Responsibility

### **Teaching Assistant** [July 2022 - Present]

- Introduction to Computing:** Led programming lab sessions and created questions for 450+ students to teach and reinforce fundamental concepts of Python programming; one of the 30 Teaching Assistants.
- Database Management System:** Collaborated with professors, assisted 160+ students in preparing assignments, and offered guidance in correcting their work; one of the 6 Teaching Assistants.
- Digital Systems:** Guided 20+ students in Verilog labs and was appreciated by the Instructor for exceptional performance and adaptability, gaining exposure to a Top-Down working culture.

### **Freelance tutor on CourseHero** [May 2021 - June 2022]

- Supported 250+ students with a 96% helpful rate, enhanced knowledge and problem-solving skills of various computer science topics by engaging with a diverse student community.

### **Caper with Cipher** [March 2020]

- Organized the event at the National-level technical fest "CYNOSURE" at Sri Venkateswara University.
- Led a team of four in the cryptography event for 60+ participants.

## Online Course Certifications

- 'Getting Started with AWS Machine Learning' by AWS Specialization.
- 'Data Science Math Skills' by Duke University.
- 'THE FUNDAMENTALS OF DIGITAL MARKETING certification' exam by GOOGLE DIGITAL UNLOCKED.
- 'Python for Everybody' by the University of Michigan.

## Achievements

- Received PRATIBHA AWARD for Academic Excellence in the 10th standard issued by Govt. of AP.
- Secured 98.41 percentile (2,981 rank in 187484 students) in EAMCET 2017 (Govt. of AP).
- Attained 98.74 percentile (974 rank in 77257 students) in Graduate Aptitude Test in Engineering (GATE 2022).
- Master-level coder with a 2158 contest rating on Coding Ninjas (in the Top 10%).
- Solved 500+ questions and earned badges on platforms like HackerRank, CodingNinjas, and LeetCode.

## Skill Summary

- Languages/Concepts: Python, C, C++, OOPs, SQL, HTML, Verilog
- Tools/Libraries: NumPy, Pandas, matplotlib, Scikit-learn, Pytorch, Git, Github, Django, Google Colab, Vivado
- Courses: Data structures, Algorithms, Operating Systems, Databases, Machine Learning, Computer Organisation and Architecture, Compiler Design