

**Hrushikesh Etikikota**  
M.Tech Graduate  
Computer Science and Engineering

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[Portfolio](#)

## 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

### A Gaze-Controlled Typing Interface with Context-Based Letter and Word Predictions [Jan 2023 - Jun 2024]

- Designed a multi-level tree-based virtual keyboard that supports disabled and speech-impaired people.
- Integrated static letter prediction and word prediction models that help with quick and easy typing.
- Conducted experiments with Mouse and Eye-Tracker and compared the results with the Dasher software
- Obtained a typing speed of 30.70 and 18.47 letters per minute using the mouse and the eye tracker, respectively, which are nearly 2.7 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 LabelImg 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 2023]

- 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 SMC2024.

## Positions of Responsibility

### Teaching Assistant [July 2022 - Jun 2024]

- 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 [Jun 2021 - Jul 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
- Tools/Libraries: NumPy, Pandas, Matplotlib, Pytorch, Git, Github, Django, Google Colab
- Courses: Data structures, Algorithms, Operating Systems, Databases, Machine Learning, Computer Organization and Architecture