

Education:

- **B.Tech, Artificial Intelligence and Data Science (2022-2026)**
Dwarkadas J. Sanghvi College of Engineering, Mumbai CGPA: 9.24
- **XII (Higher Secondary Certificate)**
Pace Junior College, Mumbai HSC Board, 85.33%
- **X (Secondary School Certificate)**
St. Xavier's High School, Borivali SSC Board, 94.60%

Experience:

- **169Pi.AI | Artificial Intelligence and UI/UX Intern**
(October, 2024– January, 2025)
 - Developing a domain-specific Small Language Model (SLM) trained on text extracted from 90+ engineering reference books using transformer-based architectures.
 - Designed Education Mode wireframes with a focus on responsive design and intuitive user workflows.
 - Implemented a PDF processing agent with the GROBID library for text extraction and metadata parsing from large-scale academic references
- **PHCCO, Indian Institute of Science, Bangalore | Summer Research Intern**
(May, 2024– July, 2024)
 - Analyzed spatial transcriptomics data to identify hypoxic regions in Oral Squamous Cancer Cells, contributing to the understanding of tumor progression.
 - Utilized Seurat (R) for tissue classification, applying advanced dimensionality reduction techniques (PCA, t-SNE) to classify tumor and stromal regions in OSCC.
 - Applied graph-based modeling to explore tumor microenvironment pathways, mapping cellular interactions and identifying potential therapeutic targets.
- **Code in Place by Stanford University | Section Leader**
(April, 2024 - June 2024)
 - Led and mentored 30 students from various countries in an introductory Python programming course, focusing on core programming concepts such as control structures (loops, conditionals), data structures (lists, dictionaries, sets), and functions, object-oriented programming (OOP).
 - Provided hands-on guidance on implementing algorithms, debugging code, and improving code efficiency..
- **DJS Informatrix | Vice Chairperson Technical**
(March, 2024 - Present)
 - Leading the Data Science mentoring team, guiding second-year undergraduates in Feature Extraction, Exploratory Data Analysis (EDA), Data Visualization, and other key Data Science concepts.
 - Organized training sessions and competitions in Data Science, Machine Learning, and Web/App Development, fostering hands-on learning and student engagement through real-world applications and interactive.

Technical Skills:

- **Languages and Frameworks:** Python, C, Java, MySQL, HTML, CSS, React.js
- **Core Concepts:** Data Structures, Design and Analysis of Algorithms, DevOps, Git.
- **Data Science:** Data Mining and Information Retrieval, Statistical Modeling, Data Visualization, DBMS.
- **AI Concepts:** Computer Vision, Image Processing, Natural Language Processing (NLP), Machine Learning (ML)

Research and Projects:

- **Title: “Enhancing Mental Health Disorder Detection Using Hybrid Ensemble Models”**
IJFMR Volume 7, Issue 1, January-February 2025. DOI 10.36948/ijfmr.2025.v07i01.35963
 - Designed and implemented a machine-learning pipeline integrating ensemble classifiers for accurate mental health disorder prediction.
 - Achieved 94% accuracy across multiple disorders with SMOTE and optimized text feature extraction using TF-IDF.

Arya R. Gawde

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➤ Exoplanet Detection using Support Vector Machine:

- Applied machine learning techniques to preprocess NASA's Kepler dataset, including data cleaning, feature extraction, and normalization, to prepare for SVM classification.
- Utilized SVM to classify exoplanets and habitable or non-habitable based on dataset features. Achieved an accuracy of 95.61% with a linear kernel and 95.57% with an RBF kernel.

➤ Indian Sign Language Detection System using LSTM

- Developed a real-time sign language detection system using Python, MediaPipe, and TensorFlow, integrating gesture-to-text, text-to-gesture, and speech-to-gesture pipelines.
- Used MediaPipe to extract hand key points, trained an LSTM model to predict gestures based on temporal data, achieving 97.59% training accuracy and 90.28% validation accuracy.
- Mapped input text tokens to predefined gesture datasets, rendering corresponding animations for text-to gesture conversion.

➤ CanvasKids : For every little Picasso

- Built an interactive web application using React, enabling children to colorize cartoon images via a digital canvas.
- Implemented Edge Detection using Sobel and Compass Mask, to segment images into distinct regions for precise colour application.
- Integrated a dynamic colour palette tool, providing seamless real-time colouring and enhancing user experience with a responsive design.

Achievements, Participation and Leadership:

- **Technical Secretary of Trinity: DJ Sanghvi's official Cultural Fest** (August 2024- Present)
- **Won scholarship of Grace Hopper Celebration India 2024** from Aspire for Her (November 2024)
- **Qualified for Round 2 of Technograd 2.0**, a national-level competition organized by DJS NSDC (October 2024)
- **Winner of Hackathon** by National Student Data Corps organized by VCET, Palghar (15th March 2024)
- **Selected for Code in Place 2023** as Student by **Stanford University** among 70,000 applications
- **All Round Best Student Award** by St. Xavier's High School, Mumbai (2019-2020)
- **Scholar's Challenge Medal** in World Scholar's Cup, an international program (65+ countries). (July 2019)
- **Atal Girl Award - Atal Tinkering Lab** (2019)
- **Merit holder** in State Level Scholarship Examination (2018)