

# SARAH PENDHARI

Mumbai, India

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## Education

### Thadomal Shahani Engineering College

Mumbai, India

*Bachelor of Engineering in Computer Engineering cum laude, CGPA: 9.05 (Till Sem 6)*

December 2021 – July 2025

## Experience

### Outlier AI

October 2024 – Present

*Freelance AI Contractor*

*San Francisco, California*

- Conducted large-scale LLM evaluations, optimizing performance metrics and ensuring deployment readiness.
- Designed robust feedback loops to refine model outputs, enhancing contextual accuracy and reliability.

### M.H.Saboo Siddik College of Engineering

January 2022 – Present

*Research Intern*

*Byculla, Mumbai*

- Developed ColourViTGAN, a novel image colourization model integrating Vision Transformers (ViT) with CycleGAN
- Achieved **PSNR of 22.659** and **SSIM of 0.928** on the Places365 dataset, outperforming SOTA methods in handling complex scenes.

### Headstarter AI

July 2024 – September 2024

*Software Engineer Fellow*

*Long Island City, New York*

- Developed an AI Customer Support chatbot using **Google's GenAI API**, deployed on Streamlit, optimized for user engagement and latency
- Added multi-language support, user authentication, and feedback mechanisms, via **LangChain** and **LLMs**.

### IIT Bombay

June 2024 – August 2024

*Summer Intern*

*Powai, Mumbai*

- Developed a data monitoring system for Powai Lake using sensors, LoRa, and ESP32; integrated data visualization with ThingsBoard and Firebase
- Designed a weather forecasting algorithm for Mumbai with **32%** better accuracy than existing ones.

### Wondrlab India Pvt Ltd.

June 2023 – September 2023

*Software Developer Intern*

*Bandra, Mumbai*

- Applied Python and ML techniques to enhance data cleaning, preprocessing, ETL pipelines, and data visualizations by **9.2%** in efficiency; developed advanced web scrapers, and led diverse software projects.

## Publications

**Benchmarking Deep Learning Models for Automated MRI-based Brain Tumor Detection: In-Depth Analysis of CNN, VGG16, VGG19, ResNet-50, MobileNet, and InceptionV3** *International Journal of Computer Applications* November 2024, [Link](#)

**ColourViTGAN: A Hybridised Approach Using Vision Transformers and CycleGAN to Add Color to Greyscale Images** *IEEE Xplore (ICEC-2024)* January 2025, [Link](#)

**Attention-Enhanced Prototypical Networks for Few-Shot Microaneurysm Detection in Diabetic Retinopathy Images** *IEEE Xplore (IATMSI-2025)*, Accepted, To be presented March 2025

**Advanced Neural Network-Based Color Transformation for Enhanced Visual Perception in Tritanopia Using Deep Learning Algorithms** *Taylor and Francis*, Submitted October 2024

## Technical Skills

**Programming Languages:** Python, C++, R, Java, MATLAB

**ML and AI Libraries:** TensorFlow, PyTorch, Scikit-Learn, Keras, OpenCV, spaCy, Transformers, NLTK

**Databases:** SQL, MongoDB, Cassandra, Firebase

## Leadership / Extracurricular

**Google Developer Student Club (TSEC) – Core Committee Member**

Aug 2022 – Aug 2024

- Led team of **15**, organized **20+** events, secured funding, and managed branding & outreach initiatives.

**Medium – Technical Writer**

Jan 2022 – Present

- Authored **21+** technical articles engaging diverse audience through insightful content.

## Awards

- Best Paper Award at IEEE (ICEC-24)** Recognized among **80+** teams for exceptional research quality and presentation.
- Youngest Genius Award by Microsoft for Startups (2022)** Awarded for winning a national-level hackathon.
- India Topper in Physics, Math, and Biology (GCSE Cambridge 2019)** Achieved the highest national score.
- Regional Champion at Mumbai SIP Abacus (2018)** Won the regional championship for mental arithmetic.