

SARAH PENDHARI

Mumbai, India

+91-7977815264 ✉ sarahpendhari@gmail.com  [LinkedIn](#)  [GitHub](#)  [Portfolio](#)  [Medium](#)  [ORCID](#)

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

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)*, Presented November 2024, To be published

Attention-Enhanced Prototypical Networks for Few-Shot Microaneurysm Detection in Diabetic Retinopathy Images *IEEE Xplore (ICUIS 2024)*, Accepted, To be presented Dec 2024

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++

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

August 2022 – August 2024

- Organized **20+** events, secured funding, branding, and managed a team of **15**; promoted technology via strategic initiatives and social media outreach.

Medium – Technical Writer

January 2022 – Present

- Authored insightful articles on technical topics, consistently publishing content to engage a broad audience.

Awards

Best Paper Award IEEE (ICEC-24) – Recognized among **80+** teams for exceptional research quality and presentation.

Youngest Genius Award Microsoft for Startups (2022) – Awarded for winning a national-level hackathon.

India Topper Physics, Math, and Biology – GCSE Cambridge (2019) – Achieved the highest national score.

Regional Champion Mumbai SIP Abacus (2018) – Won the regional championship for mental arithmetic.