Rahul Joshva M

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Profile

Information Technology student at SSN College of Engineering with strong proficiency in Python, web development, and machine learning. Experienced in building real-world projects involving UI/UX design, frontend development, and applied AI solutions. Skilled in modern technologies and frameworks, with a passion for creating impactful software and continuously expanding expertise in software development and artificial intelligence.

Education

SSN College of Engineering, B.Tech in Information Technology — Aug 2023 – May 2027

- CGPA: 7.98/10

Bethlahem Matric Hr. Sec. School, HSC — Jun 2022 – Apr 2023

- Percentage: 95.8

Experience

Research Intern, NIT Trichy – Trichy, India — May 2025 – Jun 2025

- Built a deep learning model for face generation from pencil sketches using image-to-image translation.
- Evaluated models using metrics such as SSIM and PSNR; achieved an average SSIM of 0.86 and conducted extensive experiments to improve output quality and architectural efficiency.
- Co-authored a paper detailing the methodology and model comparison.

Design Intern, Maitilabs – Chennai, India — Aug 2024 – Dec 2024

- Designed the homepage and subpages for Maitilabs, enhancing overall user experience and interface.
- Maintained visual consistency across 10+ key sections, enhancing user retention and reducing bounce rate.
- Collaborated on implementing responsive layouts and optimizing functionality for better user engagement.

Skills

Managerial: Communication, Logical Thinking, Adaptability, Emotional Intelligence

Technical: Python, Java, Artificial Intelligence, SQL, HTML, Tailwind CSS, UI/UX, ReactJs

Tools: VS Code, Postman, PyCharm, Git, IntelliJ

Projects

Face Generation from Sketches

- Designed a GAN-based model for sketch-to-face translation using Attention U-Net architecture for better spatial feature learning.
- Incorporated VGG-based perceptual loss to enhance visual quality and realism of generated images.
- Improved training dynamics by updating the discriminator less frequently, leading to more stable and effective generator learning.
- Achieved superior SSIM (avg. 0.86) and PSNR scores compared to existing methods; co-authored a technical paper detailing methodology and results.

Garbage Bin Monitoring Network [Ongoing]

- Designing a smart waste management system to monitor bin fill levels and optimize collection routes, targeting a 30% reduction in overflow incidents.
- Developing a centralized network to track the bin status, manage bin data storage, and notify collection units in real time through automated alerts.
- Implementing route optimization algorithms to reduce fuel consumption by up to 25% and enhance efficiency.