UTPAL RAJ

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Portfolio: rajutpaltech.vercel.app (Desktop)

PROFESSIONAL SUMMARY

B.Tech CSE student at SRM University (CGPA: 9.53) with a strong focus on real-world problem solving and applied software development. Solved 300+ DSA problems across LeetCode, GFG, and various platforms. Built multiple AI and GUI-based tools using Python, OpenCV, and Tkinter. Quick to learn, strong with core CS concepts, and passionate about building tools that solve real problems.

TECHNICAL SKILLS

- Languages: C, C++, Python, Java (Basics)
- Tools & Frameworks: Git, GitHub, Tkinter, OpenCV, SQL, HTML, CSS, JS
- Core Skills: Data Structures & Algorithms, OOP, DBMS, Computer Networks, Problem Solving
- Soft Skills: Teamwork, Leadership, Adaptability, Quick Thinking

PROJECTS

• Text Comparison Tool

Developed a desktop application that allows users to load or enter two different texts/files, compares them word-by-word, and highlights similar content using natural language processing techniques. Implemented user-friendly GUI with real-time comparison and similarity percentage display.

Tech: Python, Tkinter, nltk, difflib

• Age & Gender Detection

Built a real-time computer vision application that detects human faces from webcam feed and predicts age and gender using pre-trained deep learning models. Integrated 68-point facial landmark detection for enhanced precision and UI overlay.

Tech: Python, OpenCV (DNN), Caffe, TensorFlow

Personal Text Editor

Created a lightweight text editor with a graphical interface supporting in-browser text editing, basic formatting (like bold, italic, font size), and file operations like save/load. Designed for smooth user experience with a clean UI layout. *Tech: Python, HTML, CSS, JS, Tkinter*

Image Enhancement Tool

Designed a desktop-based image processing tool that provides real-time preview for enhancement tasks like background removal, grayscale conversion, cropping, and Gaussian blur. Integrated AI-based rembg model for accurate background removal and delivered a clean, dark-themed GUI.

Tech: Python, OpenCV, rembg, Pillow, Tkinter

EDUCATION

• B.Tech (CSE – Data Science)

SRM Institute of Science and Technology, Kattankulathur (2023–2027)

CGPA: 9.53

• Intermediate

St. Thomas Sen. Sec. School (2020–2022)

CBSE, 88.8%

ACHIEVEMENTS

- 1st Place Web3/Crypto Track, OSSome Hacks 2.0 (GitHub Community SRM)
- 3rd Place AI Project Expo, SRM Institute of Science & Technology
- Solved 300+ DSA problems across various platforms with a contest rating of 1600+

CERTIFICATIONS

- Programming in Java NPTEL
- Python 101 for Data Science IBM
- Image Processing, MATLAB Onramp MathWorks(MATLAB)
- Deep Learning, Machine Learning MathWorks(MATLAB)
- C for Everyone UC Santa Cruz
- Certificate of Achievement HackWithIndia
- Problem Solving SRM eLab platform

INTERESTS

- Web Development
- AI Tools
- System Design
- Open Source Contribution
- Football (strategy & teamwork)
- Sketching (creativity & attention to detail)