Utpal Raj

utpalraj1609@gmail.com | (+91) 78149 67881
GitHub: github.com/utpal16raj09 | LinkedIn: linkedin.com/in/utpal-raj-0380b6284
Portfolio: rajutpaltech.vercel.app (Desktop)

Professional Summary

Computer Science student with strong foundations in data structures and algorithms, and hands-on experience building AI-powered and desktop applications using Python and Java. Skilled in problem-solving, algorithmic thinking, and practical implementation of projects involving computer vision and GUI development. Motivated to apply technical knowledge to real-world challenges and continuously improve through learning and collaboration.

Technical Skills

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

Projects

Text Comparison Tool | *Python, Tkinter, nltk, difflib* *Mar 2024 – May 2024*
Developed a desktop application to compare two text inputs/files word-by-word and highlight similarities. Features real-time comparison, similarity percentage display, and clean GUI.

Age & Gender Detection | *Python, OpenCV* *May 2024 – June 2024*
Built a real-time vision application to detect faces and predict age and gender from webcam feed. Achieved 93% face detection accuracy, 88% gender prediction accuracy, and 74% age group classification accuracy. Integrated 68-point facial landmark detection for enhanced precision with UI overlay.

Personal Text Editor | *Python, HTML, CSS, JS, Tkinter* *Aug 2024 – Sep 2024*
Created a lightweight text editor with GUI supporting in-browser editing, basic formatting (bold, italic, font size), and file save/load. Designed for smooth user experience with clean UI.

Image Enhancement Tool | *Python, OpenCV, rembg, Pillow, Tkinter* *Feb 2025 – Mar 2025*
Developed a desktop-based image tool with real-time previews for background removal, grayscale conversion, cropping, and Gaussian blur. Integrated AI-based `rembg` for accurate background removal with a dark-themed GUI.

Education

B.Tech in Computer Science (Data Science) *2023–2027*
SRM Institute of Science and Technology, Kattankulathur
CGPA: 9.53

Intermediate (Class 12) *2020–2022*
St. Thomas Senior Secondary School (CBSE)
Percentage: 88.8%

Achievements

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

Certifications

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