

# Rafay Adeel

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GitHub • Portfolio

## Objective

Final-year CS student with Python scripting, AI, and web development experience, Seeking a hands-on internship to apply my skills in AI, machine learning, and secure software development, with a focus on image processing and data-driven solutions.

## Education

BS (Computer Science), FAST NUCES — GPA: 3.63

## Projects

- **CipherLab (Streamlit, Python)** – Developed a web app implementing ciphers (Caesar, Vigenère, Hill) where users can input plaintext and view step-by-step encryption. Modular design for easy extensions.
- **NoiseLab (Streamlit, Python)** – Interactive app for exploring image noise, with real-time noise removal and addition, and educational modules on image denoising theory.
- **X-ray Image Enhancement (Streamlit, OpenCV, Python)** – Enhanced X-ray images using Gamma Correction, Histogram Equalization, and Contrast Stretching for better medical analysis.
- **Spatial Filtering (Streamlit, Python, OpenCV)** – Built an app for spatial filtering techniques (smoothing and sharpening filters) in image processing, with real-time visual comparisons for noise reduction and edge detection.
- **Blog Summariser Web App (Next.js, Tailwind CSS, Shadcn UI, Supabase, MongoDB)** – Full-stack app that scrapes blog content, generates summaries, translates to Urdu, and stores data in Supabase and MongoDB. Built with Next.js and Tailwind CSS.
- **Quote Generator (Next.js, Tailwind CSS, Shadcn UI)** – A web app allowing users to view and share random quotes from a curated collection.
- **Growvy Redesign (HTML, CSS, JavaScript)** – Redesigned an existing 6-page website, improving layout and visual appeal using HTML, CSS, and JavaScript. Enhanced user experience through modern web design practices.
- **Airline Management System (C#, SQL)** – Created a Windows Forms app managing airline operations such as ticket reservation, flight scheduling, and maintenance tracking, involving database management and user interface design.
- **Transport Management System (C++)** – Developed an OOP-based platform allowing customers to book rides or transport goods with driver acceptance workflow, focusing on object-oriented design and system logic.

## Skills & Interests

**Languages/Tools:** Python, C, C++, C#, SQL, JavaScript, HTML/CSS, Oracle, VS Code, R, MS Office

**Machine Learning/AI:** TensorFlow, PyTorch, OpenCV, Scikit-learn, Pandas, NumPy

**Tools/Technologies:** Git, Docker, Jupyter, Streamlit, Tailwind CSS

**Interests:** Software Development, AI ML, Image Processing, Data Science, Web Development, DevOps

## Teaching Assistantships

- PF • OOP • Linear Algebra • Software Design • Database Systems

## Achievements & Certifications

- IBM: Python for AI & Data Science
- Google: Cybersecurity, Project Management, Analytics, IT Support
- Dean's List — Fall '22 to Fall '24 • Silver Medal — Fall '22

## Volunteering & Leadership

- TEDxFAST Volunteer
- Management – Daira & Job Fair '23, '24, '25
- Event Lead — Daira 2025