Rafay Adeel

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GitHub • Portfolio

Objective

Final-year CS student with Python scripting, AI, and cybersecurity experience, seeking a hands-on internship to apply skills in AI systems and secure software development.

Education

BS (Computer Science), FAST NUCES — GPA: 3.72

Projects

- **CForge Compiler (Flex, Bison, LLVM)** – Designed a custom C compiler featuring lexical and syntax analysis, and LLVM-based code generation, demonstrating deep understanding of compiler design and low-level system programming.
- **Mini OS (C++)** – Developed a terminal-based operating system with multitasking, process/thread management, and interrupt handling. Included utilities like a text editor, calculator, and simple games, showcasing OS-level resource control.
- **Chat App (Node.js, JavaScript)** – Built a real-time LAN chat app supporting multi-device messaging over Wi-Fi/LAN, with features like CORS and message logging. Demonstrates network programming and lightweight backend skills.
- **Trie Dictionary (C++)** – Implemented a prefix-based dictionary using Trie data structure supporting efficient add, delete, update, and search operations, highlighting algorithmic optimization and data structure design.
- **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.
- **BINGO Game (C++)** – Developed a two-player console BINGO game that employs arrays, loops, and functions, demonstrating fundamental programming principles and interactive game design.
- **Snake Game (x86 Assembly)** – Programmed a classic Snake game for DOS using x86 Assembly language, enhancing understanding of low-level programming and system interrupts.

Skills & Interests

Languages/Tools: Python, C, C++, C#, SQL, JavaScript, HTML/CSS, Oracle, Visual Studio, R, MS Office
Interests: Software Development, DevOps, Data Analysis, Project Management

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