Ayan Singh

Github | LinkedIn | Website

+91 9996860456 | ayansingh17.as@gmail.com

EDUCATION

Manipal Institute of Technology
B.Tech Computer Science and Engineering

CGPA: 7.82
July 2023 - May 2027

Relevant Course-Work: Data Structures, Object Oriented Programming (OOP), Database Systems, Design and Analysis of Algorithms, Automata Theory

Shemford Futuristic School

Pinjore, Haryana
Apr 2018 - Mar 2022

PROJECTS

Travel Itinerary Planner | Code | Demo

- Developed a full-stack Travel Itinerary Planner(TrIP) using **React 18, TypeScript, and Supabase**, enabling users to create, customize, and manage trips with real-time updates and persistent user-specific data.
- Implemented secure user authentication and data access with **Supabase Auth and Row Level Security** (RLS), ensuring isolated trip data per user account and profile management functionality.
- Designed a fully responsive and themed UI with **Tailwind CSS** and a custom design system, featuring dynamic trip dashboards, interactive maps, and prebuilt itineraries for popular destinations.

Agriculture Management System | Code

- Developed a modular **Java**-based Agriculture Management System (AMS) with real-time farmer registration, scheme distribution, and two-way communication between farmers and government entities.
- Designed and implemented role-based classes (Farmer, Government, Admin) with **JavaFX GUI integration**, enabling user-specific dashboards, grievance handling, and resource allocation tracking.
- Collaborated in a 4-member team to build an end-to-end OOP project, applying object-oriented design principles, JavaFX interfaces, and file-based data persistence for simulating real-world agricultural workflows.

Customer Analytics Model | Code

- Engineered a privacy-preserving ML system that predicts customer behavior from anonymized data using **RSA encryption, AES-GCM, and SHA-based hashing** for irreversible data protection.
- Built a full data pipeline in **Python** including preprocessing **(pandas)**, machine learning **(scikit-learn),** and visualization (**matplotlib**) on a dataset of 3000+ records to ensure accurate and ethical analysis.
- Integrated user transparency features via a consent-driven front end, enabling clear data usage policies and reinforcing trust between users and the system.

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, Java, C++, C#, HTML

Frameworks and Tools: ReactJS, NextJS, MongoDB, ExpressJS, MySQL, Firebase, Supabase, TailwindCSS, pandas, numpy, TensorFlow, AWS, JavaFX, Git, Github

Creative Tools: Figma, Blender, Canva, Photoshop, Unity

CERTIFICATIONS AND ACHIEVEMENTS

- IBM - Python for Data Science, AI & Development | Link
- Meta - Programming with JavaScript | Link
- Competed as part of the *official MIST CTF team*, participating and organizing multiple competitions.
- Successfully completed *Advent of Code 2024.*
- Actively engaged in teaching students about *Cybersecurity, Web3* and other Technical Skills.