

Pulkit Bose

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Summary

Python developer with a strong foundation in software development, algorithms, and data structures. Passionate about financial technology and eager to apply Python programming skills in front-office trading. a quick learner with strong analytical skills and excellent communication skills.

Skills & Technologies

- **Programming:** C, Python , HTML, CSS, JavaScript
- **Databases:** MySQL, MongoDB
- **Softwares:** Git, Docker, VS Code, Jupyter Notebook, Anaconda, TrueNAS
Transformer, Google Colab, Ollama, Hugging Face, LM Studio
- **technologies :** Nas,linux, LLM

Education

B.Tech in Information Technology	<i>Pranveer Singh Institute of Technology, Kanpur (2022-2026)</i>
12th in Indian School Certificate	<i>Sheiling House School 2021</i>
10th in Indian Certificate of Secondary Education	<i>Sheiling House School 2019</i>

Projects & Experience

Hindi to hindi conversation AI

- finetuned a phi-3.5 mini model.
- Used a 4 billion parameter model.
- library used unsloth.
- technique used QLORA 4bit.
- Made for using offline purpose and can converse in hindi with understand hindi sentences.

ViTFedCXR: A Stacked CNN-ViT-XGBoost Model for Federated Learning

- Built a federated learning model with Vision Transformers for pneumonia detection on chest X-rays.
- Applied secure model aggregation and evaluated with accuracy, F1-score, precision, and recall.
- Implemented a federated learning system using Flower (flwr) to train the stacking model on decentralized data.
- Tech Stack: Python, TensorFlow, PyTorch

Personal Portfolio Website

- Developed a responsive personal portfolio website to showcase projects, skills, and professional experience.
- Implemented a clean and modern user interface with smooth navigation and a dedicated resume download feature.
- Designed for optimal viewing across various devices, ensuring a consistent and engaging user experience.
- Tech Stack: React.js, JavaScript, HTML, CSS, Bootstrap

Savory Science - Recipe Application

- Developed a responsive web application for recipe discovery and management.
- Implemented features including ingredient-based search, detailed recipe views, and a favorites section.
- Designed a clean and intuitive user interface for optimal experience across devices.
- Utilized modern front-end technologies to ensure a performant and engaging application.
- Tech Stack: React.js, JavaScript, HTML, CSS, Vite, Tailwind CSS

Online Medecine Shop

- A foundational e-commerce platform built with the Django framework.
- Configured to handle media uploads.
- The website is built with a clean and modern user interface.
- Features a responsive design that adapts to various screen sizes.
- Tech Stack: Python, Django, SQLite, Pillow, HTML, CSS, JavaScript

Doctor Patient Portal

- Full-featured Doctor-Patient portal with separate interfaces for administrators, doctors, and patients .
- Supports core functionalities like user authentication, appointment scheduling, and doctor management.
- Follows a standard Java web application structure, separating concerns into DAOs, Servlets, and JSP pages.
- The system includes role-based access control, directing users to different dashboards after login..
- Java (Servlets),JavaServer Pages (JSP), HTML, CSS ,JDBC ,Maven.

LAVA (Linguistic Autonomy Virtual Assistant)

- Built a desktop assistant
- Used a 4 billion parameter model.
- to send emails, read news, and search Wikipedia via voice
- Tech Stack: Python, pyttsx3, smtplib, speech recognition

Codex console based Library Management System built in C

- End-to-End C Application Development.
- Custom Flat-File Database Implementation.
- book and member management, search functionality, and and reporting system to track the most borrowed books.
- Tech Stack: C

FDS Fraud Detection System

- Advanced Feature Engineering including the breakthrough is exact drain feature.
- Multiple Model Iterations with hyperparameter optimization.using xgboost
- Comprehensive Analysis including false positive/negative analysis.
- Tech Stack: Python, Scikit-learn, Pandas, NumPy

Farmisian – Agriculture Platform

- Developed an web platform for crop management and market trends.
- Utilized XAMP and PHP for backend development.

Academic Achievements

- Winner of Best Speaker of the Table 2022
- Finalist of TechExpo 2023
- Winner of TechExpo 2023

Certifications

- Introduction to Generative AI - Google
- Introduction to Responsible AI - Google
- Introduction to Large Language Models - Google
- Introduction to Image Generation - Google

Extracurricular Activities

National Cadet Corps (Lance Corporal, Kanpur)

- Leading the UPBN 55 battalion.