TAHA KHAN

Computer Information Systems Student
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Summary

Web Developer | Python & SQL | React JS | Full-Stack

Computer Engineering undergraduate with strong foundations in Python, AI/ML, and Web Development. Versatile developer with strong expertise in Python and React, complemented by hands-on experience in foundational DevOps practices. Passionate about building scalable web applications, RESTful APIs, and automating workflows. Quick learner and team player, eager to contribute to diverse development roles.

Education

NED University of Engineering and Technology

B.E. in Computer and Information Systems | GPA: 3.84 / 4 08/2022 - Present

Government Delhi College

Intermediate 10/2020 – 2022

Skills

- **Programming Languages**: Python, Javascript, C
- **Machine Learning & AI Tools**: Pandas, NumPy, Matplotlib, Scikit-learn (basic), CVAT, Excel, PyTorch, Keras, TensorFlow, LangChain, HuggingFace, Transformers
- **Visualization & Reporting:** matplotlib, seaborn, Streamlit dashboards
- **Database Management**: SQL, MySQL, SQLite, PostgreSQL
- **Frontend**: HTML, CSS, JavaScript, React, Bootstrap, Tailwind
- **Backend**: Django, Flask, Node.js
- **API Handling**: REST APIs, JSON parsing, data retrieval from external sources, form handling
- **Soft Skills**: Communication, collaboration, adaptability, fast learner
- **Tools**: Git & GitHub, Firebase, Thingspeak, JWT, Postman, Jupyter Notebook, AWS EC2

Professional Experience

1. **Data Annotation Intern – VIDIZMO.AI (Hybrid)**

Feb 2025 – June 2025

- Worked with real-world video and image datasets using CVAT for object detection and classification tasks.
- Contributed to AI-powered solutions by ensuring high-quality data annotations.
- Collaborated with the annotation and development teams to align dataset requirements with model goals.
- Gained insight into machine learning pipelines and the importance of clean, labelled data.

2. **Frontend Developer Intern – NCAI, NED University**

Dec 2024 – Jan 2025

- Developed the frontend of NetZero, a carbon emissions monitoring web platform.
- Built responsive interfaces using React.js and collaborated with backend teams for integration.
- Gained exposure to sustainable tech and user-centered UI/UX practices.

3. **AI / Backend Enginner @Unarchived (Startup) – 3 months**

Technical Projects

MediBot – AI-Powered Healthcare Assistant
Built an intelligent healthcare chatbot in Python to answer medical queries. Leveraged Natural Language Processing (NLP) to understand user input and provide relevant responses. Designed for ease of use across command-line and web environments.

FitSync – Health and Fitness Tracking Application
Created a health tracking app with Django and React. Enabled users to monitor fitness metrics like workout progress and goals. Integrated dynamic data visualizations for personalized feedback using Chart.js and REST APIs.

AirSense - Air Quality Monitoring System (IoT + Web Full Stack)
Designed a real-time environmental monitoring system using ESP32 microcontroller, DHT11 (temperature/humidity), and MQ-135 (air quality) sensors. Sent live data with timestamps to Firebase Realtime Database using NTP. Built a Django backend to sync Firebase data into PostgreSQL and developed a React dashboard for historical charting and AQI visualization. Implemented user-adjustable sampling delays and OTA update support.

SkyCast – Weather Classification Multiclass ML Model
Built a machine learning model to classify weather conditions (Clear, Cloudy, Rainy) using features like temperature, humidity, wind speed, and visibility. Applied Random Forest, Logistic Regression, and Neural Networks. Addressed class imbalance with SMOTE and presented comparative metrics (accuracy, precision, recall, FPR, ROC) through visual plots

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Customer Churn Prediction System

Built an end-to-end ML pipeline to identify potential customer churn using real-world datasets. Compared classifiers like Random Forest and Logistic Regression; applied SMOTE for balancing. Used PCA for dimensionality reduction and visualized results using ROC and F1 metrics. Serialized the best-performing model using joblib for deployment using Streamlit. Visualized feature importance and model performance using matplotlib and seaborn.

Chronic Kidney Disease (CKD) Prediction Pipeline
FastAPI | Scikit-learn | Docker | AWS EC2

Built an end-to-end ML pipeline to predict CKD using patient health data from the UCI dataset. Trained and evaluated models with scikit-learn, optimizing for accuracy, F1-score, and ROC-AUC. Designed and deployed a FastAPI backend to serve predictions via REST API. Containerized the application with Docker and deployed on AWS EC2, making the model accessible through live API endpoints. Implemented preprocessing (handling missing values, scaling, categorical encoding) to ensure robustness in predictions.

Certifications

Docker Essentials – IBM , July 22, 2025

Data Scientist in Python Certification – *DataCamp*, April 11, 2024

Google AI Essentials Course – *Google Certification Courses*, September 29, 2024

Google Data Analytics Professional Certificate – *Coursera*, December 15, 2024