JAY JAISWAL

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SUMMARY

Computer science student with hands-on Python, SQL, REST API, and machine learning project experience. Developing a custom asthma risk prediction model for QAir, supported by a conference-presented research paper. Seeking to apply this foundation to AI quality engineering, API validation, and reliable AI-powered features at Atomberg.

EDUCATION

B.Sc. Computer Science Engineering | 2024 - 2027
Navrachana University, Vadodara
Diploma in Computer Science Engineering | 2021 - 2024
Parul University, Vadodara
10th Standard | GSEB
Bright School, Vadodara

TECHNICAL SKILLS

Languages: Python, SQL, Java, JavaScript, TypeScript

APIs and web: FastAPI, Flask, REST APIs, OpenAPI documentation, React, Next.js

Data quality: Pandas, NumPy, missing-value analysis, duplicate detection, IQR outlier detection, data type checks, CSV/JSON processing, YData Profiling

Mobile: React Native, Expo, Supabase, Google Maps integration

ML and development: Scikit-learn, TensorFlow, PyTorch, Keras, NLP, YOLO, Git, GitHub, MySQL

RELEVANT PROJECTS

QAir | Asthma Monitoring and Risk Prediction | Ongoing

- Contributing to a React Native/Expo asthma monitoring app combining inhaler-use logs, location tracking, and air quality information.
- Developed a custom asthma risk prediction model, replacing the project's reliance on external prediction APIs.
- Team added location search so users can review environmental conditions and predicted asthma-trigger risk at a destination before travelling.
- App includes Supabase authentication, a map dashboard, and trigger history with AQI, particulate matter, temperature, and humidity data.

DataFixer | Automated Data Quality and Cleaning
github.com/Jay-Jaiswal/DataFixer

- Built a Python/FastAPI and React application to analyze and clean CSV/JSON datasets, separating detection, cleaning, and API handling into reusable modules.
- Automated checks for missing values, duplicate rows, mixed data types, formatting issues, and numerical outliers; generated quality scores and profiling reports.
- Implemented configurable cleaning strategies, previews, and post-cleaning verification to make transformations reviewable.
- Exposed REST endpoints for analysis, cleaning, previews, profiling, and health checks, with documented responses and error handling for invalid uploads and parsing failures.

MedCase / CuraMatch | Medical Case Matching Prototype
github.com/Jay-Jaiswal/MedCase

- Built a FastAPI backend and Next.js dashboard to compare patient inputs with 50 synthetic cardiovascular records and display the top three similar cases.
- Provided analysis, upload, patient lookup, statistics, and health endpoints with OpenAPI documentation; used simulated OCR and embeddings for the demonstration.

RESEARCH AND CONFERENCE PRESENTATION

QAir: AI-Driven Smart Asthma Management System Using IoT and Mobile Health Monitoring
Co-authored a research paper; presented as part of the team at the Sustainx 2026 international conference, CVM, Vidyanagar.

Vishwakarma Awards 2026 | Ongoing Participation
Participating with the QAir team on our AI-driven asthma monitoring and risk prediction project.