

ABHINAV TOMAR

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SUMMARY

Final-year Computer Science undergraduate specialising in Big Data Analytics, with hands-on experience building AI-powered products, LLM workflows, and data-driven applications. Experienced in translating user problems into product requirements, designing AI workflows, evaluating outcomes, and building end-to-end prototypes using Python, SQL, React, FastAPI, and modern AI technologies. Strong analytical, communication, and problem-solving skills with experience collaborating across technical teams to turn ideas into impactful products.

EDUCATION

Bachelor of Engineering in Computer Science

Chandigarh University, Mohali, Punjab — Specialisation in Big Data Analytics

Aug 2023 – Present

CGPA: 8.18 / 10

WORK EXPERIENCE

Software Engineering Intern

PARKnSECURE

Jun 2024 – Jul 2024

Gurugram, Haryana

- Developed a Python-based OCR pipeline for automated number-plate extraction with image-preprocessing steps to improve recognition accuracy under real-world lighting conditions.
- Integrated ML inference endpoints into Flask web services and curated annotated image datasets for computer-vision model training, maintaining labelling consistency across thousands of samples.

Research Assistant, Bioinformatics

ICAR – Indian Council of Agricultural Research

Dec 2024 – Jan 2025

Jhansi, Uttar Pradesh

- Standardised and quality-controlled berseem genomics datasets across multiple experimental batches, building end-to-end transformation workflows via Linux shell scripting to cut manual preprocessing effort significantly.
- Designed Excel pivot dashboards to surface genetic-trait distributions and correlation patterns, directly supporting data-driven research decisions.

PROJECTS

Crop Intelligence Agent — Autonomous Agricultural Decision System

Python — FastAPI — React — PostgreSQL — LangGraph — MCP — RAG — OpenRouter

Aug 2026

- Built a multi-MCP agentic platform using OpenRouter and LangGraph, orchestrating specialised tools for field data, analytics, ML prediction, and agricultural research.
- Designed product workflows for root-cause analysis, anomaly detection, yield prediction, risk scoring, and what-if simulations using structured data, ML models, and RAG-based research.
- Developed a FastAPI and React dashboard with real-time SSE tracing, exposing tool calls, results, confidence scores, and auditable investigation workflows.

AuraOS — AI SaaS Productivity Platform

Python — React — Supabase pgvector — Gemini LLM — FastAPI

May 2026

- Designed and built an AI SaaS platform that routes user intent to specialised agents for finance, notes, productivity, and workflow automation, translating user needs into AI features.
- Developed a RAG knowledge layer with Supabase pgvector for contextual retrieval across user documents, supporting personalised product responses.
- Integrated React, FastAPI, Google OAuth, and Telegram into a unified product experience from user interaction to backend AI execution.

SmartUtility — AI Billing, Anomaly & Fraud Detection

Python — React — FastAPI — PostgreSQL — Scikit-learn — XGBoost

Aug 2026

- Built an AI-powered utility platform for billing intelligence, consumption forecasting, anomaly detection, and fraud risk scoring across 1,031 consumer records.
- Implemented forecasting, hybrid Z-score and Isolation Forest detection, and multi-rule fraud scoring, with KPI dashboards and investigation workflows for data-driven operational decisions.

TECHNICAL SKILLS

AI & GenAI: LLMs, GenAI, Agentic AI, AI Agents, RAG, MCP, LangGraph, Prompt Engineering, NLP

Product & Analytics: Product Thinking, Requirements, Product Metrics, SQL, Dashboards, Power BI, Plotly, Streamlit

Languages & ML: Python, SQL, C++, Pandas, NumPy, Scikit-learn, XGBoost, NLTK, TF-IDF

Databases & Data: PostgreSQL, Supabase pgvector, MongoDB, Apache Spark, Apache Kafka, ETL Pipelines

Backend & Tools: FastAPI, Flask, React, Git, Linux, Docker, Playwright, Microsoft Azure

Foundations: Data Structures & Algorithms, Operating Systems, DBMS, Computer Networks

INTERPERSONAL SKILLS & CERTIFICATIONS

Interpersonal Skills

- Leadership & Teamwork
- Communication
- Problem-Solving
- Adaptability
- Organisation & Initiative
- Decision-Making

Certifications

- Microsoft Certified: Azure Data Fundamentals (DP-900)
- Intermediate Machine Learning — Kaggle
- Taming Big Data with Apache Spark — Udemy
- MongoDB Python Developer Path — MongoDB
- Data Visualization with Python — IBM

EXTRACURRICULAR ACTIVITIES

Technical Head, Core Team

2024 – Present

Insight_X_Innovators, Chandigarh University

- Led DataCraft 2025, managing website development, online examinations, registrations, and automation.
- Mentor members, conduct coding workshops, and coordinate hackathon and technical initiatives.

Competitive Programmer

2023 – Present

LeetCode — Rating 1771 | Top 9% Global | 280+ Problems Solved

- Practise algorithmic problem-solving across data structures, dynamic programming, and graphs.

Hackathon Participant

2023 – Present

Chandigarh University & Smart India Hackathon

- Represented Chandigarh University at SIH; achieved Top 25 University Hackathon, Top 50 Techathon, and 3rd place at Engineer's Day.
- Built and presented a functional prototype within a 24-hour university hackathon.