

ABDERRAHMAN LABIB

Data & Automation Engineer

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15+ years lived in Saudi Arabia | Degree attested via Saudi Mosadaqa | Relocating to Riyadh within 30 days | Arabic and English bilingual

SUMMARY

Data & Automation Engineer with 3 years of experience building production data pipelines, automation, and analytics for a health-tech platform serving corporate wellness programs. Sole owner of the wearables data engine processing 10,000+ records daily (1M+ accumulated), author of a 63-endpoint operations API and the company's live operations dashboard. Ships end to end: Python and SQL data engineering, Node.js and React product work, and BI for up to 30 stakeholders.

EXPERIENCE

Data Analyst and Automation Engineer

BytePlus Life (Byte+), Cairo, Egypt (Hybrid). Health-tech startup. | Jan 2024 to Present

- Built and solely own the production wearables data engine (13,000+ lines of Python): normalizes Rook and Spike payloads from Apple Health, Health Connect, Samsung Health, and Whoop into daily metrics and activity points, processing 10,000+ records per day (1M+ accumulated) with near-zero error rates.
- Containerized the ETL pipeline with Docker and migrated scheduled jobs from cron to Apache Airflow DAGs with retries, SLAs, and failure callbacks.
- Designed and analyzed A/B experiments on notification strategies to improve engagement, including significance testing.
- Designed and shipped the backend operations module (Node.js, Express, PostgreSQL): 63 REST endpoints and 17 tables covering the full B2B client lifecycle, with 5 migrations, a rollback runbook, and a 3-layer test suite (200+ checks against in-process Postgres plus 60+ live staging end-to-end checks).
- Rebuilt the internal operations dashboard (React 19, TypeScript, Vite) onto the platform API and re-hosted it on AWS S3 + CloudFront after diagnosing that local ISPs black-hole Netlify edge IPs; cut first-paint payload by 110 KB and brought API latency to roughly 100 ms; live at ops.bytepluslife.com.
- Built a persona-based notification engine with 23 contextual detectors, bilingual Arabic and English template banks, corporate frequency guardrails, and Ramadan-aware scheduling, delivering through Firebase Cloud Messaging.
- Automated corporate client onboarding with an 11-step Python pipeline and a Streamlit control plane (preflight validation, employee imports with bilingual welcome emails, teams, seasons, leaderboards, health data); used to onboard 10+ corporate clients, then ported into the backend as production API endpoints.
- Built a FastAPI microservice computing weighted health scores and biological-age deltas from blood, InBody, and physiotherapy data; consumed by the platform's scheduled health-profile generation.
- Built a WhatsApp Business Cloud API webhook and agent inbox (Express 5, Supabase, Vercel) with raw-byte signature verification, idempotent ingestion, signed media URLs, and a machine-to-machine send API used by the operations backend.
- Delivered 5+ Power BI dashboards for up to 30 stakeholders, cutting reporting turnaround by 75%+; shipped a cross-repo bulk user data export (backend JSON/CSV endpoints plus a Next.js dashboard dialog).
- Built meal-plan ingestion tooling with dry-run validation and per-employee plan fingerprinting (1,695 meals and 2,113 employee plans ingested).

Freelance Arabic-English Localization Specialist

Self-Employed, Remote. | 2021 to Present

- Localization and transcreation for international brands and events including Hello Kitty, Motul, and Abu Dhabi Festival (ADF), with near-zero revision rates.

SELECTED PROJECTS

Gulf Health Lakehouse | github.com/labib2002/gulf-health-lakehouse

- Health-tech data domain rebuilt on an open stack: Docker Compose, dbt (15 models, SCD2 snapshots), Airflow DAGs, Kafka streaming with idempotent producers, PySpark batch scoring, and an A/B analysis with power calculations. ~7.3M rows of seeded synthetic data, 8 architecture decision records, CI green.

Freebie Finder | freebie-finder.vercel.app | github.com/labib2002/freebie-finder-bot

- Live deal aggregator that ran unattended for 11+ months as a Python bot, then was rebuilt on Next.js 16 + Postgres (Drizzle, Neon) with canonical-key dedup and multi-channel delivery (Telegram, Discord, email, web push); operated in

production by 3 scheduled GitHub Actions.

Briefly | github.com/labib2002/Briefly

- Chrome side-panel YouTube research copilot (React 18, TypeScript, WXT): multi-strategy transcript acquisition pipeline, provider-agnostic AI routing (Gemini, OpenAI, Anthropic, Ollama), local-first IndexedDB workspaces with batch queues and global search.

Investment Calculator (Egypt) | investment-calculator-three-khaki.vercel.app

- EGP investment decision studio: decimal-precise projections, Monte Carlo goal probability, goal-seeking, inflation-adjusted real values, shareable URL state (Next.js).

Also on GitHub: investor-egx (Egyptian Exchange data pipeline), accountability-tracker (Supabase study-plan app), news-summarizer-bot (automated daily AI briefings), gmail-action-extractor (Chrome extension).

SKILLS

Languages: Python, SQL, TypeScript, JavaScript

Data Engineering: ETL pipelines, dbt, Apache Airflow, Kafka, PySpark, star schemas, SCD2, idempotent ingestion, data quality rules, data lineage

Databases: PostgreSQL (AWS Aurora), BigQuery, SQLite, Supabase, Neon, query tuning

Cloud & DevOps: AWS (S3, CloudFront, EC2, RDS), Docker, GitHub Actions CI, Vercel, pm2, cron

Backend: Node.js, Express, FastAPI, REST API design, JWT auth, webhooks (Meta, Rook), rate limiting

BI & Frontend: Power BI, React 19, Next.js, Streamlit, Recharts

Analytics: A/B testing, power analysis, KPI design, cohort analysis

AI Integration: Gemini, OpenAI, and Anthropic APIs, LLM pipelines, prompt design

Spoken: Arabic (native), English (fluent)

EDUCATION & CERTIFICATIONS

B.Sc. in Artificial Intelligence, Cairo University

Faculty of Computers and Artificial Intelligence, Giza, Egypt | Sep 2020 to May 2024 (final year completed alongside the full-time role)

- Machine Learning Specialization, DeepLearning.AI and Stanford (Coursera, 2023)
- In progress: Microsoft Azure Data Fundamentals (DP-900)

ADDITIONAL

100+ Codeforces problems solved; Egyptian Collegiate Programming Contest (ECPC) 2023 participant.