

MAHMOUD ALI

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PROFESSIONAL SUMMARY

Data Analyst with a B.S. in Aeronautical Engineering and an 11-year operational background specializing in cross-functional project management and advanced analytics. Proven ability to extract and manipulate large datasets (1M+ records) using SQL and Python, translating complex data into compelling stories and impactful Power BI/Tableau dashboards. Highly autonomous leader adept at navigating ambiguous business requirements to deliver actionable business insights and drive strategic operational decisions.

PROFESSIONAL EXPERIENCE

Powertrain Maintenance Lead

September 2020 – July 2026

US Army, Multiple locations

- Extracted and manipulated complex powertrain performance data across 1,200+ maintenance logs, acting as a trusted advisor to senior leadership by translating technical faults into strategic process improvements that recovered 400+ operational flight hours and saved \$150,000.
- Managed multiple priorities and deadlines autonomously, leading daily operations and mentoring a 12-person technical team to deliver data-driven workflow optimizations that decreased average maintenance turnaround time by 24 hours per work order.
- Partnered cross-functionally with logistics and maintenance teams to conduct rigorous trend analysis and root-cause investigations, improving equipment reliability and compliance across 3 global locations.

Production Planning Engineer

September 2016 – October 2019

Gandour, Jeddah, Saudi Arabia

- Leveraged advanced analytical tools to navigate ambiguous business requirements across 6 high-volume production lines, implementing risk mitigation strategies that eliminated 40+ annual workplace hazards and saved an estimated \$60,000.
- Designed, developed, and optimized automated weekly KPI dashboards for 5+ corporate stakeholders, leveraging data visualization to convey technical concepts to non-technical stakeholders and save 12 hours of manual reporting time per week.
- Established tracking systems and mentored 2 junior engineers, driving innovation in analytics and boosting factory floor throughput by 12,000 units weekly.

Production Engineer

December 2014 – August 2016

Edita, Cairo, Egypt

- Mined and assessed production metrics across 3 daily shifts to generate actionable insights, providing direct support for process improvements that optimized efficiency and recovered over 40 hours of monthly operational downtime.
- Collaborated directly with business partners and cross-functional maintenance teams to implement data-backed preventative measures, preventing 30+ monthly machine stoppages.
- Monitored daily waste and scrap rates, operating with a high degree of autonomy to drive root-cause analysis initiatives that salvaged over 2,000 lbs. of raw material monthly, yielding \$85,000 in annualized savings.

EDUCATION

B.S. in Aeronautical Engineering Cairo University, Cairo, Egypt

CompTIA Data+ Certification in Progress

SKILLS

- **Core Competencies:** Advanced Data Analytics, Dashboard Creation, Project Management, Data Storytelling, Requirement Refinement, Root-Cause Investigation.
- **Technical Tools & Languages:** SQL, Tableau, Python, Power BI, Advanced Excel, ETL Processes.

TECHNICAL PROJECTS

- **Financial Anomaly Detection (SQL):** Extracted and manipulated a massive dataset of over 1.2 million real bank transactions to detect financial outliers, spending patterns, and behavioral trends, translating dense data architecture into actionable business intelligence.
- **Healthcare Operations Analysis (MySQL):** Analyzed a diabetic dataset of over 101,000 hospital encounters sourced from the UCI Machine Learning Repository. Leveraged advanced SQL techniques (CTEs, Window Functions, CASE statements) to highlight operational differences and treatment trends.
- **Educational Performance Dashboard (Tableau):** Designed and deployed interactive visualization systems evaluating performance metrics across 1,800+ schools, enabling end-users to autonomously filter and analyze hundreds of structural and academic features.
- **Marketing Campaign Audit (Excel):** Evaluated over 2,000 customer profiles across 6 distinct marketing campaigns using advanced Excel functions to uncover high-conversion demographics and drive strategic shifts in targeting practices.

Interests

- DIY automotive maintenance, Fishing, Soccer.