Mohamed A.Bakr Saleh

SoCal, USA
+1 (714) 715 6225 | m.bakr@yahoo.com
website, LinkedIn

Professional Profile

Strategic data scientist with 20+ years of cross-functional experience in internal audit, FP&A, and risk management. Certified Internal Auditor (CIA) and Certified Fraud Examiner (CFE), completed a Master of Information and Data Science at UC Berkeley. Specialize in translating business questions into data-driven solutions using Python, SQL, ML, and cloud platforms. Proven ability to uncover insights, streamline operations, and support executive decision-making through advanced analytics and automation.

Education

University of California, Berkeley – Master of Information and Data Science   2025
Relevant Courses: Statistics for Data Science, Research Design and Applications for Data and Analysis, Fundamentals of Data Engineering, Applied Machine Learning, Statistical Methods for Discrete Response, Time Series, and Panel Data, Experiments and Causal Inference, Data Visualization, Machine Learning at Scale.

University of Alexandria, Egypt – Bachelor of Commerce   2004

Skills and Tools

- Python, iPython, HTML, CSS, JavaScript, R, R Markdown, SQL, VBA, Java

- PySpark, PyTorch, Tensorflow, keras
- NoSQL data stores (Redis, Neo4j, MongoDB)
- D3.js, Tableau, Power BI.

Experience

Nisum Technologies Inc.   , Brea, CA

Data Scientist   *Mar. 2025 – Present*
- Build data science solutions for clients using LLMs, RAG, NLP, and GenAI, deployed in cloud-native environments.
- Applied statistical modeling and machine learning to extract actionable insights, improving strategic outcomes.
- Collaborated across engineering and product teams to implement scalable analytics pipelines.

FP&A Manager   *Nov. 2018 – Feb. 2025*
- Automated budget variance analysis and forecasting models cut reporting time by 25%.
- Conducted root-cause analyses on revenue and utilization trends, enabling more accurate planning.
- Partnered with leadership to align strategic initiatives with operational performance metrics.
- Played a crucial role in the strategic planning process, quantifying company goals and identifying high-impact investment opportunities.
- Delivered actionable financial reports and insights on both a regular and ad-hoc basis, utilizing advanced data analysis and visualization tools.

Sr. Financial Analyst   *Nov. 2018 – Apr. 2021*

- Conducted comprehensive financial forecasts and budget comparisons to actual performance, interpreting variances and advising on corrective actions, resulting in improved budget accuracy.
- Assisted in the monthly closing process, optimizing management reporting and plan-to-actual analyses, leading to a 25% reduction in closing time.
- Built executive dashboards using Power BI and Excel to track financial performance by business unit and region.

Magnell Associate, Inc. (dba Newegg.com)   **City of Industry, CA**

Internal Auditor   *Sep. 2016 – Nov. 2018*

- Designed a Python-based system for continuous monitoring of the procurement-to-payment cycle.
- Used ML clustering to detect anomalies and potential fraud, reducing false positives in investigations.
- Planned and executed financial, operational, compliance, and fraud audits.
- Performed extensive data analysis using VBA, ACL Script, and Python.
- Conducted internal fraud investigations and briefed law enforcement.

Foulath Holding B.S.C - Steel manufacturing industry   **, Bahrain**

Senior Audit Officer   *Jan. 2015 – June 2016*

- Planned and executed financial, operational, compliance, and fraud audits.
- Developed audit working paper and cross-referencing filing system.
- Conducted awareness training sessions for various departments.
- Developed and monitored control deficiencies and remediation plans.

Al Osais Holding - Real Estate Developing & Construction Group   **Dammam, SA**

Internal Auditor   *Dec. 2012 – Dec 2014*

Other roles   *2004 – 2012*

Projects

Quantbot, *Infrastructure and Backend/GenAi developer, UC Berkeley*   , Jul 2025
A cloud-based chat agent designed to help retail investors build personalized portfolios and understand key investment principles based on their risk tolerance, budget, and preferences. Built using Python (backend) and React (frontend), the system leverages Google's ADK for a multi-agent architecture and Neo4j for memory and knowledge graph management. Deployed entirely on AWS, including PostgreSQL for data storage and Route 53 for domain routing, the platform offers an intelligent, scalable interface that combines financial expertise with conversational AI. Website Link

Flight Delay Predictions, *Data Scientist, UC Berkeley*   , Apr. 2025
A Databricks-based machine learning project aimed at predicting U.S. domestic flight delays by analyzing millions of flight records. Using PySpark and MLlib, we applied distributed data processing and classification models at scale. Feature engineering and model training were executed using MapReduce-style operations to identify delay patterns influenced by weather, airline, and airport congestion factors. The project demonstrates how cloud-native platforms and big data tools can enable scalable, real-time predictive analytics. Repo Link.

Fraud Visualization, *SME & Visualization practitioner, UC Berkeley*   , Dec. 2024
A website that explores alternative ways of representing the number of reported fraud cases using Altair. By analyzing the correlation between reported fraud cases and indicators such as corruption perception scores, GDP per capita, and average years of education, we aim to provide a more comprehensive view of the factors that influence fraud reporting and detection. Website Link.

Professional Certifications

Association of Certified Fraud Examiners   2016
Certified Fraud Examiner

International Academy of Business and Financial Management   2015
Certified Risk-Based Auditor

Institute of Internal Auditors   2010
Certified Internal Auditor