Alex Mwangi Ndungu

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SUMMARY

I am a highly motivated and results-driven Data Analyst, Data Consultant, and Software Developer with extensive experience in leveraging data to drive business insights, develop automated systems, and enhance decision-making. With a broad skill set in Python programming, SQL, Power BI, Data Mining, and Machine Learning, I have worked on diverse projects that involved optimizing processes, designing predictive models, and delivering impactful data solutions. I am currently expanding my expertise in ReactJS for frontend development and containerization using Docker.

EXPERIENCE

KEY ACHIEVEMENTS

- **Optimized Data Validation** : Reduced manual audio data validation by 40% using machine learning algorithms and advanced signal processing techniques such as SNR detection and saturation analysis.
- **ERP Solutions for Small Businesses** : Developed lightweight, Excel VBA-based ERP systems for clients, streamlining operations and enhancing business efficiency.
- **Predictive Modeling** : Designed a predictive model using machine learning that helped a client predict sales trends with 80% accuracy, improving inventory management.
- **Automation in Survey Data Processing** : Automated survey data processing for Dalberg Research, cutting processing time by 25% and increasing data consistency.
- **ReactJS Integration** : Enhanced data visualizations and user experience on automated systems by integrating ReactJS, improving client satisfaction and system usability by 20%.
- **Docker and Kubernetes** : Leveraged containerization for scalable and reproducible deployment of data processing pipelines, leading to faster data workflow execution and easier cross-platform deployment.

Data Analyst & Software Developer | Ovata | Nairobi | September 2024 - Present

- Actively learning ReactJS to design and develop interactive user interfaces for data visualization and user-friendly web applications.
- Gained hands-on experience with Tailwind CSS, implementing responsive and intuitive designs using its utility-first approach.
- Integrated APIs to ensure real-time data synchronization and visualization within web applications.
- Optimized application performance by combining ReactJS best practices with efficient frontend coding methodologies.
- Applied web development skills to connect data analysis insights with frontend visualization, improving accessibility and usability for end-users.
- Developed interactive dashboards and streamlined data storytelling by visualizing insights using dynamic frontend components.

Freelance Data Consultant | November 2022 - Present

- Provided data mining and statistical analysis services for clients in industries ranging from healthcare to finance. Used Stata and R for data cleaning and analysis, which helped clients identify hidden patterns and hence informed decisions. One project with a healthcare client faced significant data inconsistencies that were resolved through a thorough data cleaning process, restoring accuracy and integrity to the dataset.
- Delivered predictive models for sales forecasting and customer behavior, which increased a retail client's sales forecast accuracy by 75% and reduced inventory costs.
- Built automated systems that interacted with PostgreSQL databases for real-time data updates and insights. This project faced challenges with managing large volumes of data, which were addressed by introducing optimized indexing and partitioning strategies, significantly improving query performance.
- Applied Agile principles such as Kanban for project management and development, which led to better project timelines and continuous iteration of solutions based on feedback.

Data Processing Executive | Dalberg Research | Nairobi | September 2021 - Present

- Extracted data from multiple sources (internal systems, field data, APIs) and utilized tools like Python and R to clean and analyze datasets. The process led to better insights and improved reporting accuracy for clients.
- Designed and implemented complex SQL queries to extract and transform data, ensuring the quality and timeliness of reporting. A major issue faced was an initially slow query performance, which was resolved by indexing and optimizing query structures, reducing query execution time by 50%.
- Collaborated with IT teams to establish backup procedures and disaster recovery strategies for critical datasets, reducing data loss risks and improving continuity. Despite the planning, during one significant data migration, a lack of proper validation led to temporary data discrepancies. This issue was addressed by introducing more robust testing procedures and automated validation scripts, which improved reliability.
- Developed and deployed predictive models to verify speaker similarity in audio datasets, which reduced manual validation effort by 40% annually.
- Created interactive dashboards in Power BI to visualize key metrics for clients, improving accessibility and enabling data-driven decision-making.

UI/UX and Data Science Lead Volunteer | Google Developers Students Club | Voi | September 2021 - September 2022

- Hosted workshops or webinars to educate community members about the value of data and how it can be harnessed to address local issues.
- Ensured UI/UX design decisions prioritized the needs and preferences of sustainable development goals.
- Collaborated with student community organizations to offer workshops or training sessions on UI/UX design.

EDUCATION

BSC mathematics and computer science | Taita Taveta University | Minor in Statistics | Voi | 2018

CERTIFICATIONS

100 Days of Python | Udemy | 2024

Soft Skills and Communication Diploma | Alison | 2023

Data Science using Python | Simplilearn | 2023

Professional MS Excel | Simplilearn | 2022

INVOLVEMENT

Organizing Sec | September 2018 - September 2021 | Rotaract Club Voi | September 2018 - September 2021

- Organized and participated in the world clean up day on 16th September.
- Supporting mental health initiatives and awareness campaigns.
- Organizing social gatherings and events to build camaraderie among club members and promote a sense of community.

SKILLS

Data Mining & Analysis : Proficient in using Python and R for extracting and analyzing data from varied sources (e.g., internal databases, APIs, and spreadsheets).
Data Visualization : Expertise in using Power BI and Tableau for developing dynamic, interactive dashboards that present key metrics. Improved data-driven decision-making processes for clients by highlighting actionable insights.
SQL & Databases : Strong experience in working with SQL and MySQL databases for data extraction, transformation, and management. Ensured clean and optimized queries for faster reporting.
Machine Learning : Skilled in implementing machine learning models for predictive analysis and automation (using scikit-learn and TensorFlow). Successfully used these tools to automate speaker verification in audio data, saving hundreds of hours annually.
Business Acumen : Developed solutions that improved efficiency and profitability for clients, focusing on understanding business needs and translating them into actionable data-driven strategies.
Power BI & PowerApps : Created interactive dashboards and automation scripts, streamlining the reporting and data collection process.
Containerization & API Integration : Experience with Docker, Kubernetes, and API integration to build scalable data systems that can be deployed across multiple platforms.

SOFTWARE & HARDWARE SKILLS
R : Data cleaning and analysis.
Stata : Data management and automation preprocessing.
SQL : Data extraction, transformation, and reporting.
Python : Data sourcing, software development, and automation.
Excel and VBA : Custom tool development and automation for small business solutions.
IBM SPSS : Data management, translation, and statistical analysis.

SOFT SKILLS
Communicating insights and recommendations effectively
Problem-solving, analytical thinking, time management
Collaboration and ability to work cross-functionally
Conflict resolution
Empathy

REFERENCES.
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