FREDRICK KIBUTU

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CAREER PROFILE:

Results-driven **Data Analyst, Data Engineer, and Software Engineer** with proven expertise in **AI-driven solutions, business intelligence, and scalable cloud-based data systems**. Skilled in leveraging **Python, R, SQL, Tableau, Power BI, and Java** to deliver actionable insights and optimize performance. Experienced in **React.js development**, designing **ETL pipelines**, and building **predictive models** that improve decision-making and operational efficiency. Adept at architecting and deploying solutions across **AWS, Google Cloud Platform (GCP), and Microsoft Azure** to ensure scalability, security, and cost efficiency. Recognized for bridging technical expertise with business acumen to **drive data-informed strategies, streamline workflows, and deliver measurable business value**.

SKILLS

Data Analysis & Visualization

- Proficient in Python (Pandas, NumPy, Matplotlib, Seaborn) and R for data wrangling, cleaning, and statistical analysis
- Skilled in SQL (MySQL, PostgreSQL, MongoDB) for querying and database management
- Built dashboards and interactive reports using Power BI and Tableau to support business decision-making
- Applied data validation, interpretation, and presentation techniques for high-quality reporting
- Experience with financial modeling, forecasting, and risk assessment for analytical projects

Data Engineering

- Designed and maintained ETL/ELT pipelines and real-time streaming workflows with Apache Kafka and AWS (S3, Glue, Athena)
- Developed scalable data pipelines to process large volumes of structured and unstructured data
- Implemented data modeling, schema design, and governance for consistency and reliability
- Automated data cataloging and schema inference with AWS Glue for analytics readiness
- Integrated machine learning workflows into engineering pipelines for predictive insights

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Software Engineering

- Developed applications with React.js, Next.js, Node.js, Java, JavaScript, Tailwind CSS, and Spring Boot
- Built and integrated REST APIs, JSON-based communication, and microservices
- Applied Object-Oriented Programming (OOP) principles for modular and maintainable code
- Conducted unit testing, code reviews, and version control (Git/GitHub) to ensure code quality
- Designed system architecture and infrastructure for scalable and fault-tolerant solutions
- Experience with game development, feature development, and AI integration into applications

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Cloud & Emerging Technologies

- Hands-on with AWS (EC2, S3, Glue, Athena) for data storage, transformation, and querying
- Knowledge of HPE GreenLake for hybrid cloud solutions and cloud cost optimization strategies
- Integrated AI/ML models into software systems for automation and predictive analytics
- Experienced in infrastructure planning, cloud deployment, and digital transformation initiatives

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Business & Analytical Skills

- Applied commercial thinking to align technical solutions with business goals
- Conducted financial forecasting and risk analysis to support strategic decision-making
- Strong ability in data interpretation, insight generation, and actionable recommendations
- Experienced in business case development and strategic data-driven storytelling

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Leadership & Soft Skills

- Empathy-driven leadership, fostering inclusive and supportive team environments
- Strong emotional intelligence to manage relationships and resolve conflicts effectively
- Skilled in mentoring, coaching, and developing junior team members
- Effective stakeholder management and communication across technical and non-technical groups
- Proficient in Agile methodologies, project management, and cross-functional collaboration
- Strong strategic thinking, problem-solving, adaptability, and resilience
- Excellent presentation, negotiation, and decision-making skills
- Proven ability to inspire teams, build trust, and lead by example

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EDUCATION

Everything Data Africa – Data Analysis Cohort 1

Everything Data Africa – Data Engineering Cohort 1

DataCamp – Associate Data Engineering

- **AWS Cloud Practitioner (CLF-C02)**
- **Microsoft Azure Fundamentals (AZ-900)**

Power Learn Project (PLP) Academy – Software Development Cohort (AI For Software Engineering)

Global Mentorship Initiative (GMI) Program - Mentee

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PROFESSIONAL CERTIFICATIONS & TRAINING

- PMP Certification Training – Simplilearn
- CAPM® Certificate – Simplilearn
- Power BI Certification – Microsoft
- Minitab Certification – Simplilearn
- Data for Good – Trend & correlation analysis
- HubSpot Developer Training
- Associate Data Engineer – DataCamp
- Certificate of Achievement – Data Engineering – Everything Data Africa
- Data Visualization: Empowering Business with Effective Insights
- Data Analytics Project – Quantium
- Introduction to Data Science Job Simulation on Forage - Commonwealth Bank
- British Airways Data Science Job Project
- Electronic Arts Software Engineering virtual experience program
- Hewlett Packard Enterprise Software Engineering Job Simulation

PROFESSIONAL EXPERIENCE

Freelance Data Analyst & Software Developer

Codegner Dev | 2020 – Present | Nairobi, Kenya

Situation: SMEs faced challenges in financial planning, risk management, and data visualization, leading to inefficient decision-making.

Task: Develop data-driven solutions to improve financial forecasting, risk analysis, and real - time performance tracking.

Action:

- Designed advanced financial forecasting models, improving budgeting accuracy and resource allocation
- Conducted in-depth risk analysis and impact finance assessments, optimizing financial decisions for SMEs
- Developed interactive Power BI & Python dashboards, enabling real-time performance tracking and insights
- Implemented SEO & digital marketing strategies, boosting engagement with online financial services by 25%

Result: Enhanced financial decision-making for SMEs, leading to optimized operations, increased revenue, and improved business efficiency

Founder & CEO

Bit-Minute Cleaning Services | 2019 – Present | Nairobi, Kenya

Situation: The company struggled with inefficient scheduling, customer acquisition, and lack of data-driven decision-making.

Task: Implement technology-driven solutions for process automation and customer engagement.

Action:

- Developed a web-based platform, increasing customer inquiries by 30%
- Implemented dynamic pricing models, improving revenue by 35%
- Automated scheduling and workforce allocation, reducing inefficiencies by 25%

Result: Achieved higher customer retention (40%) and optimized operations, scaling business growth efficiently

Event Organizer

Silverise Enterprises | 2014 – 2019 | Nairobi, Kenya

Situation: Poor event planning and high costs led to inefficient execution and reduced client satisfaction.

Task: Improve event logistics and cost efficiency through data-driven planning.

Action:

- Created data-backed event budget plans, cutting expenses by 15%
- Analyzed customer engagement trends, increasing event participation by 20%

Result: Delivered high-quality events with a 98% client satisfaction rate

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DATA ANALYSIS/DATA SCIENCE, DATA ENGINEERING & SOFTWARE ENGINEERING WORK EXPERIENCE:

Data Analyst Volunteer

Statistics Without Borders | Remote

- Provided pro bono statistical consulting to non-profit organizations, helping them leverage data for social impact

- Conducted exploratory data analysis (EDA) and built data visualization dashboards to make complex datasets more accessible
- Assisted in survey methodology design, data cleaning, and preprocessing, leading to a 30% improvement in data accuracy for NGO projects
- Developed Python scripts to automate data processing, reducing manual work by 40% and improving report turnaround time

Data Analytics Virtual Experience

Accenture | Forage | Remote

- Completed a real-world data analytics project focused on business intelligence and predictive modeling
- Utilized Python and Power BI to analyze large datasets and extract actionable insights
- Developed an interactive dashboard, streamlining reporting for key business stakeholders.

Tata Data Visualization: Empowering Business with Effective Insights Job Project

- Completed a project involving creating data visualizations for Tata Consultancy Services using Power BI and Tableau
- Prepared questions for a meeting with client senior leadership
- Created visuals for data analysis to help executives with effective decision-making

Pro Bono Data Consultant

Catchafire | DataKind | Remote

- Provided data-driven solutions for non-profits, improving operational efficiency
- Assisted in impact measurement through predictive analytics and KPI tracking
- Automated reporting processes using Python, reducing manual reporting time by 40%

Quantium Data Analytics Job Project

- Completed a job project focused on Data Analytics and Commercial Insights for the data science team.
- Developed expertise in data preparation and customer analytics, utilizing transaction datasets to extract valuable insights and deliver data-driven commercial recommendations.
- Extended analytical capabilities to identify benchmark stores for conducting uplift testing on trial store layouts, enabling evidence-based decision-making.

- Leveraged acquired data analytics and insights from previous tasks to create comprehensive reports for the Category Manager, facilitating informed strategic decisions and enhancing commercial applications.

SQL Exploratory Data Analysis Project

- Performed end-to-end SQL Exploratory Data Analysis (EDA) on structured datasets, uncovering trends, cumulative growth, segmentation patterns, and performance insights.
- Utilized advanced SQL techniques (window functions, CTEs, subqueries, ranking, aggregations, and joins) to deliver accurate, scalable, and business-ready insights.
- Developed a reusable library of SQL scripts for KPI tracking, customer segmentation, revenue contribution analysis, and part-to-whole evaluations.
- Showcased expertise in data analysis, business intelligence, and decision support by translating raw data into actionable insights.

Commonwealth Bank Introduction to Data Science Job Project

- Completed a job project involving Data Management skills for Commonwealth Bank's Data Science team.
- Demonstrated proficiency in creating data engineering pipelines to aggregate and extract valuable insights from datasets, optimizing data-driven decision-making.
- Acquired skills in anonymizing personal data within datasets, ensuring compliance with data privacy regulations.
- Proposed effective data analysis approaches, particularly related to social media, and demonstrated the ability to design well-structured databases for efficient information management.

British Airways Data Science Job Project

- Completed a project focusing on how data science is a critical component of British Airways' success.
- Scraped and analyzed customer review data to uncover findings.
- Built a predictive model to understand factors that influence buying behavior.

Data Engineering Projects:

Data Engineering Project – Everything Data Africa

- Developed a data warehouse using the Medallion Architecture (Bronze, Silver, Gold layers)
- Built ETL pipelines for data ingestion, cleansing, and transformation
- Designed data models to enable efficient analytics and reporting
- Automated data workflows to ensure quality and timely updates
- Technologies used: SQL Server, SQL

Real-Time Stock Market Data Pipeline (Kafka, AWS)

- Designed and implemented a streaming pipeline to ingest **live stock market data (~1,000+ records/min)** using **Python** and **Apache Kafka**.
- Stored real-time and historical data in **AWS S3**, reducing manual data collection effort by **90%**.
- Automated schema/catalog creation with **AWS Glue**, enabling **query-ready datasets within minutes**.
- Leveraged **AWS Athena** for analytics, achieving query response times under **2 seconds** on millions of records.
- Demonstrated expertise in **data ingestion, scalable streaming systems, and cloud-based analytics**.

Software Engineering Projects:

AWS APAC Solutions Architecture Project – Fastier

- Designed and simple and scalable hosting architecture based on Elastic Beanstalk for a client experiencing significant growth and slow response times.
- Described my proposed architecture in plain language ensuring my client understood how it works and how costs will be calculated for it.

ScreenOnco Breast Cancer App:

- Built a responsive web app for breast self-examination guidance
- Used React.js, JavaScript, and Tailwind CSS for front-end development
- Implemented interactive features and state management for user tracking
- Focused on user experience and health awareness through technology

Electronic Arts Software Engineering virtual experience program

Proposed a new feature for the EA Sports College Football and wrote a Feature Proposal describing it to other stakeholders.

- Built a class diagram and created a header file in C++ with class definitions for each object.
- Patched a bugfix and optimized the EA Sports College Football codebase by implementing an improved data structure.

Hewlett Packard Enterprise Software Engineering Job Simulation

- Wrote a proposal for a RESTful web service to manage a list of employees.
- Built a web server application in Java Spring Boot that can accept and respond to HTTP requests as well as support uploading JSON data.
- Developed and ran a set of unit tests to assess my Java Spring Boot application's performance.

Breast Cancer Prediction App | Software Engineering Project

- Engineered and deployed a Streamlit-based web application that integrates machine learning models to predict breast cancer risk, transforming research-driven models into an interactive, user-friendly platform.
- Implemented robust application logic, seamless user interface workflows, and backend integration to ensure accurate and responsive prediction outputs.
- Applied software engineering best practices including modular code design, version control (GitHub), and deployment pipelines for reproducibility and scalability.
- Delivered a real-world healthcare solution demonstrating the role of software engineering in bridging data science innovation with accessible digital tools.

Personal Portfolio Website (KibutuJR Portfolio)

- Designed and developed a **responsive portfolio** using **React.js, Next.js, and Tailwind CSS**, showcasing professional projects, skills, and contact information.
- Built **reusable components** and applied a consistent **UI/UX design system**, ensuring a clean, modern, and engaging interface across devices.
- Optimized performance by reducing asset size (~40%), achieving **<2 second load times** and improving SEO and accessibility.
- Deployed on **Vercel** with smooth CI/CD integration, ensuring scalability and reliability.

VOLUNTEER EXPERIENCE

Go Volunteer Africa

- Led financial literacy training sessions for youth and small business owners
- Assisted NGOs with digital transformation (website dev & data solutions)
- Ran workshops on Excel, Power BI, and data visualization for local businesses
- Mentored 10+ entrepreneurs through a business mentorship program

Xtreeme Generation – Charity Event Volunteering

- Coordinated fundraising campaigns, increasing donor engagement by 40%
- Managed event marketing campaigns, improving attendance by 35%
- Handled logistics for large-scale community outreach events
- Boosted community awareness through social media efforts

PROFESSIONAL AFFILIATIONS

- **CFA Institute** – CFA Candidate (2025)
- **Global Mentorship Initiative (GMI) Program** – Mentee
- **Everything Data Community** – Member
- **Power Learn Project (PLP)** – Software Development
- **Nairobi Data Science for Business Meetup Group** – Member

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SPEAKING ENGAGEMENTS & CONFERENCES

- Attendee – Everything Data Community (2024) – "The Role of Data Analytics in Financial Inclusion"
- Guest Speaker – Young Professionals (2023) – "Leveraging Digital Tools for SME Growth"
- Downtown Toastmasters Club – Member/Attendee
- Attendee – CFA Investment Conference (2024) – Financial modeling and portfolio management

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PUBLICATIONS & BLOG CONTRIBUTIONS

- Bit-Minute Cleaning Services Blog – [Website](#)
- Codegner Dev Blog – [Medium](#)

- Codegner Dev Blogspot Blog – [Blogspot](#)
- KibutuJR Portfolio - [Website](#)

PROJECTS & PORTFOLIO

- **Data Engineering Project – Everything Data Africa:** Developed a data warehouse using Medallion Architecture with ETL pipelines and data models for analytics, leveraging SQL Server
- **Data Visualization with Tableau and Power BI:** Empowering Business with Effective Insights - Framing the Business Scenario, Choosing the Right Visuals, Creating Effective Visuals, and Communicating Insights and Analysis.
- **Quantium's Data Analytics:** Used Python & R for data analysis, deepened skills in customer analytics and uplift testing, and applied the Pyramid Principle to craft clear, strategic insights. Enhanced report writing to deliver actionable, stakeholder-focused recommendations.
- **Real-Time Stock Market Data Pipeline (Kafka, AWS)**: Delivered a scalable streaming pipeline that ingested and processed **1,000+ stock records per minute** using **Python, Kafka, and AWS**, reducing manual data collection effort by **90%** and enabling sub-2s analytics with Athena.
- Conducted **SQL Exploratory Data Analysis** using advanced queries to uncover trends, growth patterns, segmentation, and performance insights, with reusable scripts documented on GitHub.
- **The Commonwealth Bank Data Science:** clean and anonymize diverse datasets, build ETL pipelines and database schemas, run exploratory and predictive analyses, then create dashboards and actionable recommendations to improve banking decisions.
- **British Airways Data Science Job Project:** Completed a simulation focusing on how data science is a critical component of British Airways' success.
- **Electronic Arts Software Engineering virtual experience program:** Proposed a new feature for the EA Sports College Football and wrote a Feature Proposal describing it to other stakeholders.
- Completed the **Hewlett Packard Enterprise Software Engineering Job Project**, applying software engineering principles to design and build scalable solutions, improve system functionality, and deliver practical, real-world applications.
- [**Personal Portfolio Web App**](#): Launched a **responsive React/Next.js portfolio site** with modern UI/UX, achieving **<2s load times** and showcasing **5+ projects**, improving professional visibility and engagement across devices.
- [**Breast Cancer Prediction App**](#) : Engineered and deployed a Streamlit-based web application that integrates machine learning models into an intuitive, user-friendly platform, demonstrating how software engineering transforms predictive analytics into scalable real-world healthcare solutions.

- [**ScreenOnco Breast Cancer App**](#): Developed a responsive React.js web app with interactive features and Tailwind CSS to guide users through breast self-examinations for early cancer detection.
- [**Personal Portfolio Website**](#)**:** A modern and stylish personal portfolio showcasing web development, design, and branding projects.
- [**Wealthomes**](#): A vibrant and responsive real estate platform designed to showcase property listings with an engaging user experience.
- [**PetPalace**](#): A pet adoption web application built to connect shelters with potential pet owners through a user-friendly interface.
- [**JobSearch**](#): A job listing web app tailored to provide an intuitive and visually appealing experience for job seekers.

AWARDS & RECOGNITIONS

- **Winner** – Project Portfolio Hackathon – Power Learn Project Academy (2025)
- Top 5 Finalist – Nairobi Data Science for Business Meetup (2023)
- Outstanding Volunteer Contribution – Go Volunteer Africa (2023)

PERSONAL INFORMATION

Languages: English (Fluent)

Interests: Business Development, Finance, Data Analysis, Data Science, Data Engineering, Software Engineering, Web & App Development Trends, Event Planning, Volunteering

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REFERENCES

Available upon request