

Technically proficient Data Science and Engineering professional with a background in Civil Engineering. Expertise in Data Science and Machine Learning tools and object - oriented programming languages for scalable data-driven solutions. Experienced in Data Analysis and Statistics to deliver AI/ML solutions for complex business challenges. Committed to advancing AI and machine learning projects.

SKILLS

Languages	Python, R, SQL
Tools	Jupyter, Google Colab, Visual Studio, Docker, SQLite, Excel
Data Visualization	Matplotlib, Seaborn; ggplot2, Rshiny App, PowerBI
Communication	English, Swahili
Soft Skills	Adaptable, persistent and positive attitude to the dynamics of a work environment and culture; Effective communication and time management

TECHNICAL EXPERIENCE

Engineering and Data Science
EVOBldg

September 2022 – Present
Nairobi, Kenya

- Creating an automated data collection and management system for heavy construction equipment data.
- Developed machine learning models for prediction and optimization of energy loads and thermal comfort of occupants.
- Retail data analysis to recommend efficiency improvements using Python and Jupyter Notebook.
- Time series analysis of weather data to understand its impact on energy efficiency and consumption on buildings
- Conducted building simulation analysis and testing to compare various design options for optimum Energy consumption of buildings
- Conducted cost estimations for engineering projects to optimize budgets.
- Applied statistical techniques to ensure compliance with local and national regulations in the analysis of environmental impacts of projects using data-driven insights.
- Analysis, design, and detailing of Structural and Civil Engineering projects.

Engineering and Data Analysis
Sobetra and China WU Yi

July 2020 - August 2022
Nairobi, Kenya

- Audited Interim Payment Certificates to ensure accuracy and expedite monthly payments for work completed during the contract.
- Analyzed machine costs across active sites to facilitate strategic planning.
- Standardized periodic report and budget templates to improve data management and oversight.
- Detailed analysis, design, and detailing of infrastructure data that ensured accurate and cost-effective construction.
- Negotiated with suppliers and sub-contractors to secure favorable terms and ensure that project requirements were met.

Intern
ICT Authority

July 2019 - June 2020
Nairobi, Kenya

- Represented the interests of the counties and the council in the drafting and review of policy documents.
- Engaged the National Government Ministries and Agencies to ensure alignment of their Infrastructure and Energy Programs with the Counties’ strategic plans.
- Data collection to get insights of the Counties’ progress on their infrastructure and energy plans.
- Drafted Engineering Drawings of the National Optic Fiber Backbone (NOFBI) Rehabilitation Project.
- Supervision of the daily maintenance operations of fiber connections within Nairobi

EDUCATION

Bachelor of Science in Civil Engineering, Dedan Kimathi University of Technology
Second Class (Honours)- Upper Division

September 2013 - April 2018
GPA - 3.3

High School, Moi High School- Mbiruri
Mean Grade A-

February 2009 - November 2012
79/84 Points

TRAINING, SPECIALIZATION AND QUALIFICATION

Technical Training	
• JavaScript Programming with React, Node MongoDB Specialization, IBM	April 2025 - Present
• Machine Learning for Production, DeepLearning.AI	July 2024 - October, 2024
• Machine Learning Specialization, DeepLearning.AI and Stanford Online	July 2024 - October, 2024

• Data Science for Construction, Engineering and Architecture, <i>National University of Singapore</i>	June, 2024 - August, 2024
• Statistics for Data Science with Python, <i>IBM</i>	June, 2024 - August, 2024
• Data Analytics for Project Management, <i>Udemy</i>	June, 2024 - August, 2024
• Excel for Data Analysis, <i>IBM</i>	June, 2024 - July, 2024
• Data Visualization with R, <i>IBM</i>	May 2024 - June 2024
• Databases and SQL for Data Science with Python, <i>IBM</i>	March 2024 - May 2024
• Communicating with Data, <i>University of Illinois, Urbana Champaign</i>	March 2024 - April 2024
• Introduction to Business Analytics using R, <i>University of Illinois, Urbana Champaign</i>	March 2024 - April 2024
• Operation Analytics, <i>University of Pennsylvania - Wharton School</i>	February 2024 - March 2024
• Data Analysis Using Python, <i>FreeCodeCamp</i>	January 2024 - March 2024
• Learn to Program with Python, <i>University of Toronto</i>	January 2024 - March 2024

Leadership and Mentorship Training

• Developing, Mentoring and Supporting Youth Leadership, <i>YALI Network</i> ,	2024
• Management Strategies for People and Resources, <i>YALI Network</i>	2024
• Strategies for Personal Growth and Development, <i>YALI Network</i>	2024

Qualification

• Graduate Engineer, , <i>Registration number: B15972</i>	2025
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PROJECTS

1. Automated data collection and management: Currently creating a system that enables automated updates, error handling and database management functions. Use cases will include market analysis, inventory management and cost estimation, with future plans for machine learning integration, API development and dashboards.
2. Exploratory Data Analysis for retail data of an Online Retail Store using Python to uncover trends, customer behaviour and popular products
3. Web scrapping and analysis of job requirements from a major job posting sites using the Extract Transform Load process. Used beautiful soup and requests libraries for scraping
4. Developed a K- Nearest Neighbour models and Random Forest Models to predict developer salaries based on Stack Overflow’s 2024 data.
5. Building Energy Analysis using Python through Jupyter and Google Colab Notebooks in Visual Studio Code to perform the following operations:
 - building simulation analysis to compare various design options for optimum Energy consumption of various buildings
 - Time series analysis of weather data to understand its impact on energy efficiency and consumption on various buildings
 - Developed classification models to predict residents’ comfort based on thermal sensation using eXtreme Gradient Bosting algorithm
 - Developed a classification model to forecast energy consumption levels as either high or low using eXtreme Gradient Bosting algorithm
 - Developed a K- Nearest Neighbor Regression model to predict energy consumption based on time, temperature and humidity conditions
 - Developed a clustering model to group Daily Energy Load Profiles and understand energy consumption patterns using random forest algorithm.