

JAMES KARANJA

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PROFESSIONAL SUMMARY

Detail-oriented and highly skilled Analytical Chemist with a strong background in performing complex chemical analyses and developing innovative solutions in laboratory settings. Proficient in utilizing advanced analytical techniques and equipment to ensure accurate and reliable results. Demonstrated expertise in conducting product analysis using BP and USP monographs, performing quality control checks, and maintaining rigorous documentation standards. Adept at environmental impact assessments, air and noise quality measurements, and HSE audits, contributing to compliance and safety standards. Committed to enhancing operational efficiency and adhering to safety protocols, with a proven track record of delivering precise and actionable insights in diverse industrial environments.

EDUCATION

- Master Of Science in Chemistry September 2023 – Present
University Of Nairobi
- Bachelor Of Science in Analytical Chemistry September 2018 – May 2022
University of Nairobi

SKILLS

- **Chromatography Techniques** – Proficient in using High-Performance Liquid Chromatography (HPLC) and Gas Chromatography (GC) for precise separation and analysis of complex mixtures.
- **Spectroscopy Methods** – Skilled in applying UV-Vis, FTIR, and NMR spectroscopy to identify and quantify chemical compounds with high accuracy.
- **Mass Spectrometry** – Experienced in utilizing Mass Spectrometry (MS) for detailed molecular identification and structural analysis.
- **Electrochemical Analysis** – Adept at conducting electrochemical assays, including voltammetry and potentiometry, for accurate detection of chemical reactions and concentrations.
- **Sample Preparation and Extraction** – Expertise in preparing and extracting samples using techniques such as liquid-liquid extraction and solid-phase extraction to ensure reliable analysis.
- **Quantitative and Qualitative Analysis** – Proficient in performing both quantitative and qualitative analyses to determine the concentration and identity of chemical substances.
- **Data Interpretation and Statistical Analysis** – Skilled in interpreting complex analytical data and applying statistical methods to ensure the validity and reliability of results.
- **Method Development and Validation** – Experienced in developing and validating analytical methods to meet specific analytical needs and regulatory requirements.
- **Laboratory Instrumentation Maintenance** – Competent in maintaining and calibrating laboratory instruments to ensure optimal performance and accuracy.

WORK EXPERIENCE

Interventionist | *Global Work Study Program, Nairobi* | January 2024 – Present

- Provide online English and Mathematics classes to underserved Black Americans in Maryland, improving access to quality education for marginalized communities.
- Tailoring lesson plans to the individual learning needs of each student, ensuring personalized instruction that addresses gaps in their knowledge and skills.
- Enhancing student engagement through interactive teaching methods such as virtual whiteboards, multimedia tools, and real-time feedback to foster active participation.
- Continuously assessing student progress using quizzes, assignments, and assessments, enabling targeted interventions to improve academic performance and confidence.
- Incorporating culturally relevant content and examples in lessons, making learning more relatable and fostering a deeper connection to the subject matter.

- Supporting students in building strong foundational skills in English and Mathematics, empowering them to excel academically and prepare for future opportunities.

Laboratory Analyst | *University of Nairobi* | December 2023 - Present

- Guiding students through hands-on lab sessions to enhance their practical understanding of scientific concepts and techniques.
- Implementing method validation plans for analytical procedures, ensuring accuracy and compliance with established standards.
- Participating in the review and continuous improvement of laboratory protocols and standard operating procedures to maintain high-quality standards.
- Ensuring laboratory risks are minimized by following strict safety protocols and risk management practices during lab activities.
- Managing various assigned duties, including maintaining lab equipment and supporting the smooth operation of lab activities.

Technical Environmental Analyst And EHS Officer | *Pestavic EHS Kenya Limited, Nairobi* | September 2022 – January 2024

- Collected effluent samples for clients and delivered them to the lab for thorough analysis, ensuring accurate environmental monitoring.
- Conducted environmental impact assessments, fire safety evaluations, and first aid training, enhancing overall safety and compliance.
- Performed air quality measurements and analyses, contributing to improved environmental health and regulatory adherence.
- Led HSE audits for various companies and compiled audit reports in accordance with Directorate of Occupational Safety and Health (DOSHS) requirements, ensuring compliance and safety standards.

Laboratory Intern | *Kenya Medical Supplies Authority (Kemsa), Nairobi* | July 2021 – October 2021

- Conducted product analysis using British Pharmacopeia (BP) and United States Pharmacopeia (USP) monographs, ensuring compliance with approved procedures.
- Documented analysis results with precision using specified formats and data storage systems.
- Performed random quality checks on products and physical inspections before receipt at KEMSA stores to ensure standards were met.
- Evaluated pharmaceuticals and non-pharmaceuticals through technical assessments to ensure compliance with quality standards.
- Calibrated and maintained laboratory equipment, prepared reagents, and conducted routine warehouse inspections, adhering to lab safety measures.

Food Service Attache' | *Premier Food Industries, Nairobi* | December 2018 – May 2019

- Created tailored off-label drink formulations, boosting customization and satisfaction.
- Developed customized drink recipes to meet diverse customer preferences.
- Engineered off-label drink preparations, demonstrating adaptability to customer demands.

VOLUNTEER EXPERIENCE

- Member | *Greening Oloitokitok Community-Based Organization* | December 2020 – Present
- Member | *Impact Team (I-Team)-Member* | November 2023 – Present
- Peer Teacher | *Kiirua Boys School* | May 2019 – August 2019

PROFESSIONAL CERTIFICATION

- Health And Safety Training Certificate | *Pestavic EHS Services Ltd.* | April 2023
- Fire Safety Training Certificate | *Pestavic EHS Services Ltd* | April 2023