ARTHUR NG'ANG'A NYOTA

Phone: (+254) 743863767
Email: Arthur.nyota@strathmore.edu
GitHub Link: nyota777
Linked In :Linked-in profile

Mailing Address
Nairobi, Kenya 22894

EDUCATION

Strathmore University.
Bachelor of Science in Informatics and Computer Science: Current Grade C
Light Academy Secondary School
Kenya Certificate of Secondary Education (KCSE): Mean Grade B+, Mathematics A-,
English B
Riara Road Primary School
Kenya Certificate of Primary Education (KCPE) 394 out of 500 marks

EXPERIENCE

IT Intern — Isuzu East Africa Ltd
January 25th, 2025 – April 4th, 2025 | Nairobi, Kenya

- Provided IT support and system troubleshooting, assisting staff with technical issues to ensure smooth business operations.
- Configured and maintained network infrastructure, ensuring stable connectivity across departments.
- Worked on data analysis and visualization using Power BI and managed data using MySQL to generate insights for business reporting.
- Collaborated in software development projects, leveraging Microsoft Power Apps to design and build an HR employee system that streamlined the hiring and onboarding process.
- Gained hands-on experience in technical documentation, problem-solving, and teamwork within a corporate IT environment

PROJECTS

1. **BUDJECT TRACKING MANAGEMNET SYSTEM**

Technologies and Languages Used: Laravel, PHP, Java
Collaborated with my partner to create a budget tracking system that lets users effectively track and control their spending. implemented strong features for managing user authentication, data processing, and reporting using Laravel and PHP for the backend. created a smooth, responsive user interface with real-time updates by integrating Java, guaranteeing a positive user experience.

Important contributions:

To manage user budgets, transactions, and reporting tools, essential backend functionalities were developed.
procedures for data retrieval and storage were put in place to ensure safe and effective database interactions.
worked cooperatively in a group setting, actively participating in code reviews, project planning, and troubleshooting.
By managing error handling procedures and streamlining code, the system's security and efficiency were increased.
My abilities in full-stack programming, collaboration, and problem-solving were enhanced by this project in a quick manner.

2. DRUG DISPENSING SYSTEM.

Technologies used: API Integration, PHP, MySQL
worked alongside a partner to create a complete drug dispensing system that would make keeping patient records and distributing medication more efficient. used MySQL for safe data storage and PHP for server-side processing, guaranteeing precise patient and prescription data monitoring. Third-party APIs were integrated to automate the dispensing procedure and streamline medicine inventory management.
Important contributions:
In order to effectively store and manage patient information, prescription records, and dispensing logs, database schemas were designed and implemented in MySQL.
PHP was used to create server-side features for managing user interactions, processing prescriptions, and updating information.
incorporated an external API to retrieve drug data, improving inventory control and guaranteeing precise dosing.
managed project milestones, fixed problems, and made sure data flowed smoothly between system components while collaborating closely with a partner.

3. FLEA MARKET MOBILE APPLICATION.

Technologies Used: Android Studio, Kotlin

Created a mobile application that enables Strathmore University students to buy and sell goods in their community with ease through a virtual flea market. Students can easily connect and trade with each other thanks to the app's user-friendly interfaces for displaying things, browsing categories, and managing transactions, which were created with Android Studio and Kotlin.

Important contributions:

Core Kotlin app features, such as item listing, search, and user account management, were designed and implemented.
For a smooth and interesting user experience, an intuitive user interface was implemented.
worked together with colleagues to guarantee seamless, real-time interactions and maximize app performance.
centered on data management and user protection, following industry best practices for managing user data.
This project improved my Kotlin mobile development abilities and my honed my skills in mobile development.

4. BLOOD SHORTAGE FORECASTING SYSTEM

Technologies Used: Python, XGBoost, Scikit-learn, Pandas, NumPy, Matplotlib, Seaborn, Flask (backend), Joblib, Google Colab

OptiBlood – AI-Powered Blood Shortage Prediction & Donor Availability System Developed a machine learning-driven decision support system for the Kenya National Blood Transfusion Service (KNBTS) to proactively predict blood shortages and identify high-probability donors, addressing Kenya's chronic blood deficit where only 58% of the annual 510,000-unit demand is met.

Important contributions:

- Designed and implemented a **hybrid predictive model** combining Auto-ARIMA time-series forecasting with XGBoost classification, achieving **84–87% accuracy** and **0.91+ AUC** in donor availability prediction on real blood transfusion datasets.
- Engineered high-impact features (recency scoring, donor engagement, loyalty indices, eligibility windows) and applied advanced techniques including **Borderline-SMOTE**, **RobustScaler**, **feature selection**, and **isotonic probability calibration** to deliver reliable, interpretable predictions.
- Built an interactive **real-time dashboard** with visual analytics (confusion matrix, ROC curves, probability distributions, feature importance, recency-based donation rates) enabling blood bank managers to anticipate shortages per blood type and prioritize donor outreach.
- Created a deployable **Flask-based backend** with a saved XGBoost model pipeline that generates priority donor lists (Very High / High / Medium / Low) and flags at-risk/lapsed donors for targeted campaigns.

- Ensured production readiness by packaging the model with Joblib, generating actionable CSV outputs ("CONTACT_THESE_DONORS_NOW.csv"), and producing examiner-grade visualizations for reporting and stakeholder presentations.

This project significantly sharpened my expertise in **machine learning engineering**, **predictive modeling for healthcare**, **time-series + classification hybrid systems**, **data pipeline development**, and **building deployable AI solutions** that can directly save lives through better blood supply management in Kenya.

COMMUNITY SERVICE

The Kenya National Library Service (KNLS)
[Student Volunteer], [Nairobi Kenya], [Jan 2024- April 2024]
At the Kenya National Library, these are some of the activities I was involved in:
In order to enhance library inventory management, new materials were cataloged, making sure that the records were precise and comprehensive.

In an effort to promote resource sharing and educational accessibility, I helped distribute books to different schools around the nation.

In order to help the department, maintain effective operations, I carried out daily administrative duties.
To make sure they were properly entered to the library database for convenient tracking and retrieval, I scanned books and arranged digital records.

In addition to strengthening my feeling of accountability and community service, this experience improved my cataloging, data management, and teamwork abilities.

This experience enhanced my skills in cataloging, data management, and teamwork, while fostering a strong sense of responsibility and service to the community.

The Hult Prize Kenya.
[Social Media Volunteer], [Strathmore University]

LANGUAGES

English: Native Language
Swahili: Native Language
German: Intermediate Listener, Advanced Reading and Writing

PROGRAMMING LANGUAGES, SKILLS AND TOOLS

Technical Skills: Web Application Development, Mobile Application Development, Server and Database Administration Flask, Computer Networking.

Languages: C++, Java, HTML, CSS, PHP, Python, Markdown, Kotlin, JavaScript

Soft Skills: Teamwork, Good Communication, Time Management, Problem Solving, Self-Driven and Eager to learn.

Tools: MySQL, VS Code, Sublime Text, Android Studio, Figma, GitHub, Firebase, Microsoft Office, Apache, Cent OS, Virtual Box

Frameworks: Laravel

AFFILIATIONS AND COMMUNITIES

IT, Innovation Research, SCESA Club, 2023-Present
Member of the Strathmore Computing and Engineering Club.
Cyber Security Club, 2024-Present

Strathmore Chorale and Band, 2022 October-Present
Member of the Strathmore Chorale and Band as a drummer.

OTHER

Interests/Hobbies worth noting
- Swimming
- Mechanical Repairs and Servicing
- Drumming

Citizenship
- Kenyan

REFERENCES

Vilma Mwangi
Isuzu EA
+254 728117869
vilma.mwangi@isuzu.co.ke.
vilmajimmymwangi@gmail.com.

Morris Ethare
Isuzu EA
+254 726235019

morris.ethare@isuzu.co.ke.