

# FREDRICK KARURI

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## TECHNICAL SKILLS

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- Proficient in programming languages such as Python and Javascript
- Experience with software engineering concepts including data structures and algorithms
- Knowledge of front-end development technologies such as HTML, CSS, Vue and React
- Conversant in version control systems like Git
- Familiarity with back-end frameworks like Django for web application development

## EDUCATION

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### DAYSTAR UNIVERSITY

Bachelor in Applied Computer Science

Major in Computer Science;

Relevant Coursework: Software Engineering; Operating Systems; Algorithms; Artificial Intelligence; System Design; Human Computer Interaction

Athi River, Machakos

2019 - 2023

## CERTIFICATIONS & TRAINING

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- Google UX Design Specialization (Coursera)
- IBM & Darden Digital Strategy Specialization (Coursera)
- Data Analysis (Udacity)
- Google Cloud Certification (Google Developers)

## WORK EXPERIENCE

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### Dukatech Solutions (15 employee startup)

Software Developer

Nairobi, Kenya

Feb 2023 – Present

- Collaborated with cross-functional teams to design, develop, and implement intuitive user interfaces for web and app platforms, enhancing user experience and satisfaction.
- Utilised React, Node.js, and Tailwind CSS to build responsive and user-friendly applications, ensuring optimal user experience.
- Contributed to the complete software development lifecycle, from concept to deployment, and collaborated closely with developers to create seamless user flows.
- Played a pivotal role in enhancing collaboration by participating in the creation of platforms, fostering effective teamwork and delivering high-quality products.

### FORAGE

JPMorgan Chase & Co. Software Engineering Virtual Experience

Online

Feb 2023 - Apr 2023

- Applied Python and Node.js to connect with real-time stock data, refining expertise in data integration and analysis for actionable insights.
- Demonstrated proficiency in utilising industry-standard frameworks and tools, gaining valuable insights into professional software engineering practices.
- Translated intricate data into vivid visualisations, empowering traders with clear insights, bolstering decision-making and stakeholder confidence.

Walmart USA Software Engineering Virtual Experience Program

Feb 2023

- Developed software solutions using Java, data structures, optimization techniques, UML modelling, and SQL database management
- Created use cases and UML diagrams (activity, sequence, class) to facilitate communication between teams, stakeholders, and end-users

## STUDENT INTERN

Computer Lab Assistant

Athi River, Machakos

Jan 2020– Feb 2023

- Exhibited exceptional technical skills in computer hardware and software maintenance, ensuring optimal functionality of computer labs.

- Managed and maintained hardware and software resources, effectively troubleshooting and resolving technical issues.
- Decreased lab downtime by 25% and improved overall student satisfaction by 15% through effective management and maintenance of hardware and software resources.

## UNIVERSITY PROJECTS

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### PREDICTIVE MAINTENANCE SOLUTION (X-Failure)

Apr 2023-Oct 2023

- Orchestrated the creation of a predictive maintenance solution, emphasising predictive analytics and real-time data for equipment failure forecasts.
- Employed React for a dynamic user interface, coupled with Django for a robust backend and Supabase for efficient real-time database management.
- Integrated LSTM neural networks, analysing historical data for accurate failure predictions, enabling proactive maintenance and enhancing operational efficiency significantly.
- Successfully addressed the complexities of integrating diversified real-time data sources using Axios for efficient backend communication, ensuring seamless operation of the predictive analytics system.
- Utilised Plotly for intuitive data visualisations, facilitating real-time monitoring, predictive alerts, and informed decision-making through historical data analysis.
- Conducted comprehensive market research to inform the solution's development, ensuring alignment with industry needs and creating a technologically advanced, market-driven product.

### USER DESIGN

Dec 2022-Feb 2023

- Created The Keeper, a movie preview experience app that provides users with detailed information about movies, showtimes, reviews, and theaters to enhance the movie-going experience.
- Collaborated with a team to design and develop FarmB, an app and responsive site that provides resources, information, support networks, and advocacy for farmers facing social injustice.

## TECHNICAL PROJECTS

- Conceptualized, designed, and developed a blog site, utilizing Python, Django, Bootstrap and HTML to deliver a unique platform that caters to artists and readers alike. .
- Collaborated with a team to develop a 2D Paint Program using C++ and OpenGL as part of a coursework project. The program's functionality was thoroughly tested and verified on both Windows and Linux platforms, and it shares features with MS Paint.
- Built a commerce website using React and Commerce.js, allowing users to browse and purchase products online. Implemented features such as a shopping cart, checkout process, and payment gateway integration.
- Leveraged low-code development environments like Webflow to rapidly prototype and build dynamic web solutions.

## ACHIEVEMENTS

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### WINNER OF PRODUCT DESIGN COMPETITION

- Secured first place in the 2023 Actuarial Society of Kenya Product Design Competition, as part of a team that created an automated financial reporting in accordance with IFRS 17
- Reduced reporting process time by 50% by automating CSM and Risk Adjustment calculations, enhancing efficiency and accuracy.
- Collaborated with a partner to deliver a solution that had a significant positive impact on the industry.

## ACTIVITIES

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### DAYSTAR CHRISTIAN FELLOWSHIP

Treasurer

Athi River , Machakos

Apr 2020 – Present

- Provided financial oversight and management for a successful electoral process, as Treasurer for the Electoral Commission of Daystar Christian Fellowship, ensuring accuracy, transparency, and adherence to established financial policies and procedures.

## ADDITIONAL

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**Soft Skills:** Oral Communication, Taking Direction Well, Leadership

**Softwares:** Proficient in Figma, Adobe XD, Docker, Illustrator