

# John Malek Garang

Software Engineer

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## SUMMARY

I am a passionate and driven IT professional with a strong focus on developing applications that meet and exceed user expectations. With a keen interest in backend systems, databases and data analytics, I thrive in collaborative environments where I can both contribute and learn from others.

I am eager to leverage my technical skills, innovative mindset and dedication to contribute meaningfully to society, drive innovation and deliver impactful software solutions.

## EDUCATIONAL BACKGROUND

1. 2008 to 2011  
Primary School
2. February 2012 to November 2015  
High School
3. 5th June to 30th June 2016  
Msoma Bootcamp  
Web Development and Programming using Python
4. May 2022 to June 2023  
ALX Africa  
Certificate in Software Engineering
5. January 2020 to April 2024  
Jomo Kenyatta University of Agriculture and Technology  
Bachelor of Science in Information Technology  
Second Class Upper Division

## SKILLS

- **Programming Languages:** Proficient in Java, PHP, Python, C, C++, JavaScript.
- **Web Development:** Proficient with HTML, CSS3, ReactJS and NodeJS.
- **Database Management:** Skilled in SQL, PostgreSQL database design, optimization and administration. Can also use MongoDB.
- **Frameworks and Libraries:** Familiar with Django, Flask, Spring Boot, ReactJS
- **Version Control:** Proficient in Git for code versioning and collaboration.

- Software Development methodologies: Agile
- **Data analysis:** Pandas, NumPy
- **Communication:** Excellent verbal and written communication skills.

## **WORK EXPERIENCE**

### 1. Field Officer/Instructor

Ujamaa Africa

June 2018 to January 2020

#### **Roles and Responsibilities**

- Training school-age boys on Hero in Me Curriculum where they learn to turn towards the tests of life and practice standing up for the rights of their mothers, sisters, girlfriends and other women in their lives.
- Writing reports about adoption of the program.
- Conduct Randomized Control Trials (RCT) for research.
- Teach the program in any school assigned.

### 2. Equitel Salesperson

Equity Bank Kenya

September 2016 to March 2017

#### **Roles and Responsibilities**

- Sell Equitel lines to bank customers.
- Register customers to use Equitel lines.
- Troubleshoot lines that had problems.
- Answer customer questions.

### 3. Software Development Attachee

Eclectics International

May to July 2023

#### **Roles and Responsibilities**

- Building the backend of an application.
- Using Spring Security to implement Authentication and Authorization.
- Using Spring Data JPA to handle database operations.
- Building APIs to be used by frontend and mobile developers.
- File management: handling user-uploaded files and images.

## **CERTIFICATIONS**

### **Stanford Medicine Department of Genetics**

Fundamentals of Data Science in Precision Medicine and Cloud Computing

Languages, Frameworks and Topics: Python, R, Pandas, Cloud Computing, Epigenetics, Genomics

### **ALX Africa**

Software Engineering (Backend and Frontend)

Languages and Frameworks: C, Python, SQL, Flask, JavaScript, TypeScript, Shell

### **IBM Skills Build**

Build your own Chatbot

Languages and Frameworks: IBM Watson Studio

### **Udemy**

Web Developer Bootcamp

Languages and Frameworks: HTML, CSS, JavaScript, React, Node, MongoDB, ExpressJS

## **PROJECTS**

### **1. Immunization Tracking System**

A project I undertook for my final year project for a degree in information technology at Jomo Kenyatta University of Agriculture and Technology. It is a system that automates and helps maintain the status of immunization in Kakuma Refugee Camp. It has the following functionalities:

- Patient Registration
- Authentication and Authorization
- Resetting Passwords and Account Details
- Scheduling and Reminders using Text Messages (SMS)
- Reporting and Analytics
- Electronic Inventory of Vaccines
- Access Control
- Storage of Immunization Records
- Search and Discovery
- Input Validation

**Technologies Used:** Spring Framework, SQL, ReactJS

### **2. ThriveMatch App**

A project I worked on in a team while on attachment at Eclectics International. The app was designed to connect investors and startups. Investors (individual and company) and startups sign up on the platform and upload their documents and information. Each can then scroll and find the one they like.

#### **Features**

- User Authentication
- Liking of profiles
- User Recommendation and Matching
- Chat Functionality
- Document Sharing

#### **My roles**

- Build the backend part of the application.

- Database design and setup.
- Expose APIs for frontend and mobile developers.

Technologies used: Spring framework, SQL

### **3. Movie Manager**

An application I built to practice after learning python in a tutorial. It uses the movie database API to display information about movies.

#### **Functionalities**

- Add Movie
- View added movies
- Change movie rating
- Delete movie

Technologies Used: Python, Flask, SQLite

### **4. Grocery Shop Inventory System**

An application I built to help local women selling groceries to keep track of their stock.

#### **Functionalities**

- Add Items
- Authorization and Authentication
- Edit Items
- Search Functionality
- View Items
- Delete Items
- Item numbers are reduced when bought

Technologies Used: Visual Basic .NET, SQL

## **REFERENCES**

1. Francis Thiong'o  
Chairman, IT Dept, JKUAT  
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2. Sammy Kiilu  
Human Resource Manager, Eclectics International  
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