

# Otsogile Ogaisitse Onalepelo (Morena)

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## WORK EXPERIENCE

### Weblogic Botswana

January 2023 – Present

#### Technical Lead

- Leads the company's product offerings by introducing AI and Machine Learning.
- Build intelligent software systems, driving innovation and staying ahead of industry trends.
- Design, implement, and manage software, web, and mobile application solutions.
- Provide technical leadership on software engineering projects.
- Develop technical solutions and presentations for clients during the sales process
- Lead and grow the Software Engineering organization, fostering a professional and motivated team.
- Mentor junior developers, managing their performance and identifying their training needs.
- Provide end-user training to ensure effective use of software solutions.
- Troubleshoot client system problems, providing support and procedural documentation.
- Manage multiple open cases, prioritizing based on urgency and impact.
- Establish good working relationships with customers and other professionals.
- Foster a culture of continuous improvement and agile development methodologies.
- Drive the adoption and implementation of best practices in software development and quality assurance.

### Toro Clinic, Palapye, Botswana

January 2018 – December 2022

#### Chief Technology Officer

- In charge of research, technological development, information, and technological strategy formulation.
- Developed and maintains the clinic's web-based hospital information management system, called Recosoft, utilized offline. Recosoft helps the facility fine-tune its marketing strategies to ensure a ROI by analyzing and evaluating them using KPIs and acted upon using reports generated by reporting dashboards I developed and embedded into Recosoft.
- Developed the clinic's website accessible online at <https://toroclinic.com/>. The website plays a vital role in the clinic's digital marketing and transformation strategy as it is search engine optimized and it makes it easy for clients to schedule appointments online.

### Always Open Clinic, Gaborone, Botswana

July 2016 – December 2016

#### Information Technology Intern

- Responsible for troubleshooting and fixing IT-related issues in the clinic.
- In charge of developing and implementing a web-based patient queue management system called Queue Master.
- Queue Master facilitated meaningful use of data generated from patient registrations, which was impractical before its implementation as the facility utilized traditional methods (pen and paper) for patient registrations. It makes it easy to allocate resources and budget, formulate policies, monitor and evaluate them, and generate collection ratio reports.

## EDUCATION

### University of Electronic Science and Technology of China, Chengdu, People's Republic of China

June 2021

Degree: Master of Engineering in Biomedical Engineering

Specialization: Bioinformatics & Machine Learning

### Botho University, Gaborone, Botswana

January 2018

Degree: Bachelor of Science (Honors) in Health Information Management

Awards: 7 out of 9 Dean's List Awards; Best Student Award; Awarded a fully funded CSC master's degree scholarship.

### University of YouTube, Online, Self-Taught

May 2016 – Present

Degree: Bachelor of Engineering in Software Engineering

## PROJECTS

### NFT-Market-Place-App (Skills: UML, React Native, Expo, MySQL, Python, FastAPI, Heroku) – [Project Link](#)

- A react native marketplace where users can create NFT's and bid on other user's NFTs.

### Pneumonia-Prediction (Skills: EDA, Python, FastAPI, React, Keras, TensorFlow, Pandas, NumPy, Seaborn, Matplotlib) – [Project Link](#)

- This is an end-to-end PWA and a convolutional neural network (CNN) project that classifies chest x-ray images of patients with lung disease (pneumonia) and those who do not have lung disease (normal). The model had a 0.90 AUC score, 0.91 Accuracy, 0.92 Precision, 0.94 Recall, and a 0.91 F1-score for class 0 (Pneumonia).

### Breast-Cancer-Classification (Skills: EDA, UML, Python, FastAPI, React, Sklearn, Pandas, NumPy, Seaborn, Matplotlib) – [Project Link](#)

- An end-to-end PWA and a supervised machine learning (random forest) project which classifies patients' abnormal masses of cells (tumors) as either benign (non-cancerous) or malignant (cancerous). The model had a 0.99 AUC score, 0.99 Accuracy, 1.0 Precision, 0.97 Recall, and a 0.99 F1-score for class 0 (Cancerous Tumors).

### Insurance-Cost-Prediction (Skills: EDA, UML, Python, FastAPI, React, Sklearn, Pandas, NumPy, Seaborn, Matplotlib) – [Project Link](#)

- Another end-to-end PWA and a machine learning (linear regression) project to predict the medical insurance cost of a person. The model yielded an R2 score of 0.79.

#### **Recosoft** (Skills: HTML,CSS,Bootstrap,JavaScript,jQuery,Ajax,MySQL,PHP,Xampp)

- It is an electronic medical records system that I developed and implemented first at Toro Clinic. It is currently deployed in 7 outpatient clinics in Botswana and has 70K plus patient files in my databases. All systems are utilized offline.

#### **8 More Machine Learning Projects** (Skills: EDA,ETL,Sklearn,Pandas,NumPy,Seaborn,Matplotlib) – [Projects Link](#)

- This is a compilation of other machine learning projects I have worked on. For these projects, I was applying random models to different problems and datasets.

#### **COVID-19-CDD** (Skills: EDA,ETL,Python,ChEMBL,Pandas,NumPy,Matplotlib,Bioinformatics,SciPy,Seaborn,RdKit) – [Project Link](#)

- Conducted a computational drug discovery on FDA-approved drug compounds in an attempt to find a compound or molecule that could inhibit the function of SARS-COV2(COVID-19). Mann-Whitney-Wilcoxon test was used to test for statistical significance, with a p-value threshold observed at 0.05. Some distribution results were statistically significant.

#### **Ithute Motswana Website** (HTML,Materialize CSS,jQuery,PHP,MySQL) – [Project Link](#)

- I founded an NGO with fellow Batswana to assist students in obtaining international scholarships. We developed a website and utilized social platforms, successfully aiding several students in securing fully funded scholarships.

#### **Parcks Website** (Skills: React, React Snap,React Helmet,Chakra UI, FastAPI,MySQL) – [Project Link](#)

- Currently engaged in the development of a website for a UK-based startup, Parcks, which involves converting UI/UX designs from Figma into functional code. A portion of the website is already live on the company's domain, accessible at <https://parcks.com>

## TECH SKILLS

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Front End:	HTML, CSS, Bootstrap, Tailwind CSS, Materialize CSS, Chakra UI, JavaScript, jQuery, Ajax, React, React Native, Expo, SEO, WPO, PWA.
Back End:	XML, JSON, SQL, MySQL, Redis, PHP, Botman, Restful & SOAP APIs, Python, FastAPI, C++, Twilio, Node Js, Express Js, Mongo DB
Artificial Intelligence:	ETL, EDA, Data Visualization, NumPy, Pandas, Scikit-learn, Matplotlib, Seaborn, TensorFlow, Keras, Machine & Deep Learning Algorithms, Streamlit, Dialogflow, NLP, NLTK, Spacy, Gensim, fastText, Recommender Systems.
Other Tools & Skills:	Git & GitHub, GitLab, Docker, UML, A/B Testing, Pytest, Jest, Cypress, Web Scraping, Cloud Technologies, Postman, System Design, Design Patterns, People Skills, Presentation Skills, Linux, Microsoft Office.

## REFERENCES

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