

# MARTIN NJOROGE

## Junior AI Trainer & Freelance Software Engineering Consultant

### SUMMARY

Software Engineer with hands-on experience in AI training and software development. Proficient in Python, Java, C++, JavaScript, PHP, and MySQL. Skilled with TensorFlow, Scikit-Learn, and PyTorch. Master's and Bachelor's degrees in Software Engineering and Intelligent Systems from Kirinyaga University. Developed an AI-augmented code optimization framework and an academic performance predictor using ML techniques. Strong background in full-stack system development, machine learning model evaluation, dataset annotation, and software engineering research.

### TECHNICAL SKILLS

<b>Main Technical Skills</b>	Python, Java, JavaScript, C/C++/C#, PHP
<b>Programming Languages</b>	Java, JavaScript, PHP, Python
<b>Ruby Libraries and Tools</b>	Active model serializer
<b>C++ Libraries and Tools</b>	C/C++/C#
<b>UI Frameworks, Libraries, and Browsers</b>	HTML/CSS Preprocessors
<b>AI &amp; Machine Learning</b>	Neural Networks, NLP, PyTorch, Scikit-learn, TensorFlow
<b>Python Libraries and Tools</b>	PyTorch, Scikit-learn, TensorFlow
<b>Data Analysis and Visualization Technologies</b>	Data Analysis
<b>Databases &amp; Management Systems / ORM</b>	Data Lake, MySQL
<b>Methodologies, Paradigms and Patterns</b>	Architecture and Design Patterns

<b>Virtualization, Containers and Orchestration</b>	Docker
<b>Version Control</b>	Git
<b>Operating Systems</b>	Linux
<b>Third Party Tools / IDEs / SDK / Services</b>	Microsoft Visual Studio Code
<b>Other Technical Skills</b>	Optimism

## **WORK EXPERIENCE**

**Researcher - Master's Thesis, AI-Augmented Code Optimization and Predictive Debugging Framework**

**Duration: August 2023 - On-going**

**Summary: Developed an AI-Augmented Code Optimization and Predictive Debugging Framework exploring the use of large language models to analyze, detect, and correct code issues.**

**Responsibilities: Dataset refinement, annotation, error analysis, and algorithmic research.**

**Technologies: Large Language Models, Python, AI/ML Tools**

**Research Assistant, AI & Innovation Research Group Collaboration**

**Duration: Date Not Specified**

**Summary: Contributed to Python-based tool creation, dataset curation, and evaluation of experimental AI models with the university's AI & Innovation Research Group.**

**Responsibilities: Tool creation, dataset curation, experimental AI model evaluation.**

**Technologies: Python, AI/ML Tools**

**Student - Final-Year Project, AI-Based Academic Performance Predictor**

**Duration: Date Not Specified**

**Summary: Created an AI-Based Academic Performance Predictor using machine learning techniques to forecast student performance.**

**Responsibilities: Applied AI and model evaluation.**

**Technologies: Machine Learning, Supervised Learning, Python**

**AI Trainer & Freelance Software Engineering Consultant, AI Training & Software Consulting**

**Duration: 2023 to Present**

**Summary: AI model training, refinement, and evaluation, and development of Python-based tools for automation and model diagnostics.**

**Responsibilities: Train, refine, and evaluate AI models through structured dataset creation and annotation. Develop automation tools and evaluate AI outputs.**

**Technologies: Python, AI/ML Tools, Dataset Creation, NLP**

**Software Development Intern, University Systems Development**

**DURATION: JANUARY 2022 - DECEMBER 2022**

**SUMMARY: ASSISTED IN THE DEVELOPMENT, TESTING, AND MAINTENANCE OF INTERNAL SYSTEMS FOR KIRINYAGA UNIVERSITY WITH A FOCUS ON WEB SOLUTIONS.**

**RESPONSIBILITIES: DEVELOPMENT, TESTING, MAINTENANCE OF SYSTEMS, PERFORMANCE IMPROVEMENT, AND CONTRIBUTION TO ADMINISTRATIVE EFFICIENCY.**

**TECHNOLOGIES: PHP, JAVASCRIPT, HTML/CSS, MYSQL**  
**EDUCATION**



- **Master of Science in Intelligent Systems & Software Engineering**  
This Master's program exposed me to advanced concepts in Machine Learning, Intelligent Algorithms, Deep Learning, Software Architecture, and Human-AI Interaction.  
August 2023 - July 2025
- **Bachelor of Science in Software Engineering**  
My Bachelor's Degree established a strong technical foundation in programming, system design, databases, and computational thinking.  
September 2020 - July 2023