

# Patrick Muthii Muriuki

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## PROFESSIONAL SUMMARY

Innovative Software Developer with 5+ years of experience specializing in AI-powered automation, machine learning, and full-stack Python development. I lead PythonAIDev.com - where we build smart AI solutions, intuitive automation tools, and deliver clean, efficient code using Python, and modern ML/DL frameworks. Passionate about transforming business challenges into scalable digital solutions using Python and emerging technologies. Skilled in end-to-end project delivery - from system design and testing to deployment and long-term optimization.

## WORK EXPERIENCE

### AI and Automation Engineer in Python

Mar 2025 - Present

PythonAIDev • Remote

- \* Founded and led PythonAIDev.com, delivering bespoke AI and automation solutions to global clients in marketing and ecommerce
- \* Developed and deployed CryptoRadar.co.ke, a real-time cryptocurrency prediction platform serving live market forecasts using ensemble ML models - it executes scheduled hourly predictions and data fetching with high reliability and fault tolerance relying on Celery and RabbitMQ
- \* Built a Twilio-powered WhatsApp automation app using Python (Django) that leverages Google APIs and Selenium to scrape business websites and social media profiles, and uses LLMs to analyze and recommend improvements
- \* Designed Redis-backed queuing system handling 20+ concurrent AI tasks including media generation, web scraping, and ChatGPT integration using optimized Celery beat schedules
- \* Advised clients on digital transformation using Python-based AI/ML models to cut operational costs, improve decisions, and scale faster.

### AI and Python Developer

Oct 2022 - Feb 2025

BlipBillboards • Remote

- \* Leveraged the HubSpot API to integrate marketing, sales, customer service, and content management functionalities to optimize data flow and communication
- \* Developed Python automation scripts to analyze campaign data of 300,000 US customers within HubSpot, identifying areas requiring additional resources such as labor hours and advertising: this streamlined operational efficiency and reduced campaign expenses by 10%.
- \* Designed and implemented a Python-based recommendation model for campaign optimization. This provided insights into the specific advertisements and campaigns

yielding the highest impact.

- \* Integrated machine learning and automation with data-driven decision processes to improve resource allocation and campaign performance.
- \* Implemented monitoring systems to track and analyze campaign performance. Adjusted strategies based on real-time data for continuous improvement, resulting in a 5% increase in customer satisfaction.

### **Python | Data Scientist**

Jan 2022 - Sept 2022

ResearchGate • Remote

- \* Developed a topic-detection model to identify trending Twitter topics in Saudi Arabia using NLP techniques like TF-IDF and word frequency vectors.
- \* Applied LDA and LSA to enhance topic classification accuracy and uncover latent themes in tweets.
- \* Used deep neural networks (DNNs) to estimate user interest in topics by region.
- \* Benchmarked and validated NLTK vs. spaCy for tokenization, POS tagging, and NER, providing actionable insights on library strengths.

### **Python | Django & React Developer**

May 2020 - Dec 2021

BuyLiveDeals • Remote

- \* Integrated eBay's API to consolidate search results, to enhance product discovery and comparison features.
- \* Developed robust RESTful APIs using FastAPI to manage data flow, support order fulfillment, and enable real-time updates for a third-party dispatch service.
- \* Built a scalable React TypeScript frontend for a seamless user experience, and improved interactivity and performance.
- \* Leveraged WebSockets with FastAPI and Starlette to implement real-time notifications and live updates.
- \* Optimized system performance by deploying Redis-backed channels for efficient message handling and scalability.

## **EDUCATION**

### **Bachelor of CyberSecurity**

May 2021 - Mar 2023

International University • Buchdorf, Germany

Learned how to understand different vulnerable computer attacks, security flaws, and even the key signs a hacker has infiltrated a system. Learned:

- \* Different types of attacks like physical, semantic, and syntactic
- \* Broad and specific hacking tricks
- \* An ethical way of formulating a hacking plan

As a developer, I look forward to discovering new and counterintuitive techniques to solve problems that conventional methods cannot.

## **Mathematics and Computer Science**

Taita Taveta University • Voi

Sep 2017 - May 2021

Learned major programming languages, OOP, algorithms, data structures, and mathematical foundations such as Algebra, Calculus, and Linear Programming.

## **SKILLS**

- \* Python, React, Django, FastAPI, Flask, C#, ASP.NET, JavaScript, Node + NPM, HTML, CSS
- \* PostgreSQL, MongoDB, SQLite
- \* AWS, Google Cloud, Azure, SQL
- \* Data Science, AI and ML, Deep Learning
- \* NLTK, sPaCy, Apache Airflow, Gensim, Pandas, Plotly, Matplotlib, SciPy, Matlab, R
- \* Data Structure, OOPS Structure
- \* Git & GitHub
- \* RabbitMQ, GUI, Celery, Elasticsearch, Fabric, Ansible, Docker, Selenium, PhantomBuster, Make
- \* Design Skills, Analytical Skills
- \* System Analysis & Data Analysis
- \* Leadership & Teamwork
- \* Communication Skills
- \* Agile/Scrum
- \* MS Office
- \* MS Windows
- \* Kubernetes
- \* Entity Framework Core (EF Core)
- \* RESTful API
- \* Unit testing

## **VOLUNTEER WORK**

### **Participant**

Rotary Club of Ongata Rongai • Nairobi

May 2015 - May 2015

Supported A Project for Equipping Ongata Rongai Health Center with Modern Laboratory Facilities