

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
ResearchGate • Remote

Jan 2022 - Sept 2022

- * 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
BuyLiveDeals • Remote

May 2020 - Dec 2021

- * 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
International University • Buchdorf, Germany

May 2021 - Mar 2023

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