

PETER KIMANGA

INFORMATION TECHNOLOGY SPECIALIST

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PROFESSIONAL SUMMARY

Performance-driven Data Scientist with 3+ years of experience in machine learning, full-stack development, and data analytics. Proven track record of delivering end-to-end solutions from healthcare prediction models to blockchain applications. Near-completion of MSc in Computer Science with demonstrated leadership in academic instruction and student mentorship, combining strong technical skills with business acumen and research experience.

SKILLS

TECHNICAL SKILLS

Programming & Full-Stack: Python, JavaScript, Java, C, ReactJS, Node.js, Flask, HTML/CSS, PHP (React/Next.js, Node.js/Django)

Machine Learning: TensorFlow, PyTorch, scikit-learn, NLP, Neural Networks, Feature Engineering, Model Deployment

AI & LLMs: LLMs, LLM APIs (OpenAI/Anthropic), Prompt engineering (system prompts, few-shot, evaluation), AI workflow design

APIs & Testing: REST/JSON API design, Git/GitHub, CI/CD, Unit & integration testing

Databases: SQL, MySQL, MSSQL, T-SQL, NoSQL, PostgreSQL, MongoDB

Tools & Platforms: Docker, Blockchain (Solidity, Web3.js), Jira,

Trello, WordPress

Business Intelligence: Data visualization, SEO, Digital marketing, Economics, Strategic management

SOFT SKILLS

Communication & Leadership: Proven ability to mentor students, deliver technical presentations, and lead cross-functional teams

Problem-Solving & Decision-Making: Strong analytical thinking with experience in identifying key problems and implementing effective solutions

Teamwork & Collaboration: Experience working in agile environments and managing stakeholder relationships

Adaptability & Resilience: Demonstrated ability to learn new technologies quickly and manage multiple projects simultaneously

Project Management: Skilled in planning, organizing, and delivering projects on time using tools like Jira and Trello

EDUCATION

Master of Science in Computer Science | Oct 2023 – Present

(Ongoing)

Dedan Kimathi University of Technology, Nyeri, Kenya

Bachelor of Science in Business Information Technology | May

2019 – Apr 2023

Dedan Kimathi University of Technology, Nyeri, Kenya

Second Class Honours Upper Division

CERTIFICATIONS & PROFESSIONAL QUALIFICATIONS

Cybersecurity

- Introduction to Cybersecurity | *Cisco Networking Academy* | Feb 2021
- CCNA Routing and Switching: Introduction to Networks | *Cisco Networking Academy* | Nov 2019

Software Development

- Career Essentials in Software Development | *Microsoft & LinkedIn* | June 2023
- Programming Foundations: Beyond the Fundamentals | *LinkedIn Learning* | June 2023
- Programming Foundations: Fundamentals | *LinkedIn Learning* | June 2023
- Introduction to Career Skills in Software Development | *LinkedIn Learning* | June 2023

Technology & Networking

- Introduction to Internet of Things | *Cisco Networking Academy* | Nov 2021

Language Proficiency

- EF SET Certificate (C1 Advanced English) | *EF Standard English Test* | Jan 2022

PROFESSIONAL EXPERIENCE

Graduate Assistant | Oct 2023 – Jan 2026

Computer Science Department, Dedan Kimathi University of Technology

- Teach undergraduate courses and supervise 50+ students in programming and data analysis laboratories
- Develop curriculum materials and assess student performance using data-driven evaluation methods
- Support academic program improvement through performance analytics and feedback systems

Full-Stack Developer | Oct 2025 – Dec 2025

Infradyn AB, Remote, Sweden

- Designed and implemented backend services and REST APIs integrating large language model (LLM) APIs.
- Engineered high-quality prompts (system, user, and few-shot examples) to improve LLM response accuracy, reliability, and token efficiency for different product use cases.
- Built and maintained frontend components that consume AI-powered APIs, ensuring a cohesive, intuitive user experience across the platform.

- Wrote clean, maintainable full-stack code, added unit and integration tests, and participated in code reviews to ensure stability across development, staging, and production environments.
- Collaborated with product and engineering teams to translate business requirements into AI-driven features, from initial prompt design to deployment.
- Created and maintained technical documentation for APIs, LLM workflows, and system architecture to support future maintenance and onboarding.

Software Developer Intern | Jan 2022 – Mar 2022

The Jitu Limited, Nyeri, Kenya

- Developed web applications using JavaScript, React, Node.js, and Redux with MySQL/MSSQL databases
- Implemented data structures, algorithms, and error-handling techniques for production systems
- Collaborated in agile teams on project management, documentation, and WordPress development

KEY PROJECTS

Healthcare Analytics: Lung Disease Prediction App using Python, TensorFlow, and CNNs for medical imaging analysis with web deployment via Flask

NLP & Translation: Neural Machine Translation system (Dholuo-Swahili) built with PyTorch, featuring custom attention mechanisms for real-time translation

Blockchain Development: Ethereum-based credentials verification platform using Solidity and Web3.js for tamper-proof certificate management

Mental Health AI: Postpartum Depression Detection tool leveraging NLP and ML classifiers (Logistic Regression, Random Forest) on

patient survey data

Financial Analytics: Kenyan Household Financial Health Assessment using K-means clustering and interactive Tableau dashboards for community programs

PUBLICATIONS

- ✓ **Deep Learning Algorithms Used in Intrusion Detection Systems -- A Review-** <https://doi.org/10.48550/arXiv.2402.17020>
- ✓ **Financial Health Assessment for Households in Kenya-** <https://doi.org/10.1109/ICT4DA62874.2024.10777274>
- ✓ **Neural Machine Translation in Low-Resourced Languages: Case of Dholuo-Swahili Translation-** <https://doi.org/10.23919/IST-Africa67297.2025.11060514>
- ✓ **Performance of Transformer Based Models in Dholuo Swahili Translation for Low Resourced Language-** <https://doi.org/10.1109/ICT4DA67218.2025.11282674>

ACHIEVEMENTS & CERTIFICATIONS

- MSc Computer Science Scholarship Recipient
- Published research contributor in machine learning applications
- Team leadership in multiple cross-functional projects

LANGUAGES & INTERESTS

- **Languages:** English (Fluent), Swahili (Fluent)
- **Interests:** Reading, Documentaries, Hiking, Open Source Contributions

REFERENCES

Dr. Gabriel Kamau,
Chairman of Department, Computer Science ,
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