

Mirieri David Mogaka

Software Engineer | Back-End Developer

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Uthiru, Nairobi, Kenya

Experienced Back-End Developer with 6+ years of expertise in designing, developing, and optimizing server-side infrastructure for web and mobile applications. Skilled in building scalable RESTful APIs, managing databases, and implementing secure and high-performance backend systems. Proven ability to enhance system scalability, optimize database performance, and drive cross-functional collaboration in remote environments.

Projects

Africa Asia Dairy Genetic Gain (AADGG) API [Africa Asia Dairy Genetic Gain REST API documentation - API Platform](#)

Niko Na Ngo'mbe Ghani API https://github.com/Mirieri/nikonangombeghani_api

AADGG Data Script https://github.com/ilri/adgg_database

AADGG Main Platform <https://github.com/ilri/adgg-frontend>

Technical Skills

Programming Languages: Python, SQL, PHP, C++, JavaScript, Java

Frameworks: PHP Frameworks (Symfony, Yii, Laravel), Python (FastAPI, Django), JavaScript (React, Vue Js)

Web Development: HTML, CSS, Drupal, WordPress

Databases: MySQL, PostgreSQL, MongoDB, Elasticsearch, Redis

Cloud & DevOps: AWS (ECS, Lambda, API Gateway, SNS/SQS), DevOps, CI/CD

Development Environments: Google Colab, GitHub Codespaces, VS Code (Visual Studio Code), IntelliJ IDEA

Version Control: GitHub

Operating Systems: Linux (Ubuntu, Kali Linux), Windows

Systems & Engineering: Distributed Systems, Production Systems, Engineering Best Practices

Analytical & Technical Skills: Analytical Skills, A/B Testing, Causal Inference, Machine Learning

Work Experience

Research Associate III

Aug 2018 – Aug 2024

Research Institute ILRI | Nairobi

- Architected and enhanced backend infrastructure using PHP (Symfony, Laravel Lumen, Slim) and Python, achieving a 50% increase in system scalability, as measured by reduced load times and enhanced user capacity, by leveraging Docker and Kubernetes for containerization.
- Engineered a modular, RESTful API framework with Laravel Lumen and Slim, boosting system interaction by 30%, as measured by increased API call efficiency, for data-driven applications through advanced backend development skills with microservices.
- Led AWS deployment of backend solutions with Lambda, EC2, and API Gateway, utilizing Dockerized microservices and Kubernetes clusters, ensuring scalable and stable system operations, as measured by 99.9% uptime, demonstrating adeptness in cloud platform and DevOps capabilities.

Database Technician

Aug 2017 - Aug 2018

Research Institute ILRI | Nairobi

- Optimized database performance by 30% through meticulous tuning, index optimization, and query restructuring, leveraging Docker and Kubernetes for enhanced system scalability.
- Ensured 99.9% system uptime by diligently monitoring database systems, swiftly resolving issues, and reducing downtime by 25%, showcasing strong proficiency in system operations and stability.
- Developed Python and Linux scripts to streamline data processing, achieving a significant improvement in system performance in high traffic environments, demonstrating advanced backend development skills.

Jul 2017 - Aug 2017

Software Engineer Intern

Kenya Tsetse and Trypanosomiasis Eradication Council (KENTTEC) | Nairobi

- Optimized ERP system operations to ensure seamless website functionality, demonstrating advanced backend development skills.
- Engineered a batch data processing pipeline using Python and SQL, enhancing data retrieval speed by 30%, showcasing proficiency in key technologies and contributing to system efficiency.

Software Engineer Intern

DewCis Solutions LTD | Nairobi

- Engineered REST APIs using Java for seamless cross-platform integrations, enhancing data exchange and application functionality, and contributing to a 20% increase in system interoperability.
- Directed Agile sprints as Scrum Master, optimizing project delivery and team efficiency, which resulted in a 30% improvement in project completion rates.
- Pioneered the development of a high-performance machine learning algorithm using Python and TensorFlow, which boosted data processing efficiency by 35%, showcasing advanced backend development and analytical skills.

Google Student Ambassador

Oct 2014 - Dec 2015

Google | Eldoret

- Spearheaded digital marketing initiatives as a Google Student Ambassador, achieving a 50% increase in student engagement with Google products, by leading comprehensive training sessions and innovative campaign strategies.
- Orchestrated campus-wide events and technical mapping projects, enhancing leadership capabilities and fostering a collaborative learning environment.
- Drove a 35% uplift in student participation in online certifications through strategic promotion of Google products, leveraging event management and digital outreach.

Education

University of Eastern Africa

Jan 2011 - Dec 20

Bachelor of Science Software Engineering

Certifications & Languages

Certifications: Google Digital Marketing Certification

Languages: English (Proficient)