

# Brian Mboya

Senior Software Engineer

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Solutions-driven professional with hands-on expertise in designing, integrating, and testing software systems. Adept at conducting in-depth research for navigating emerging technologies and tools to deploy large-scale hybrid cloud platforms and applications. Tech-savvy expert; proficient in multiple programming languages and DevOps technologies. Skilled in coaching and training technical staff to improve productivity. Keen comprehension in writing and maintaining automated tests and liaising with DevOps team for migrating products to Jenkins pipeline hosted on servers. Creative thinker and problem-solver with strong interpersonal, leadership, and communication skills.

## Areas of Expertise

◆ Infrastructure Management	◆ Software Design & Architecture	◆ Team Leadership & Training
◆ Research & Development	◆ System Maintenance & Updates	◆ Technical Troubleshooting
◆ Software Testing & Debugging	◆ Continuous Process Improvement	◆ Cross-functional Collaboration
◆ Academic Research		
◆ Wolfram language		
◆ Mathematica		

## Technical Proficiencies

Mathematica | Wolfram Language | Python | JavaScript | SQL | Docker | Linux | PostgreSQL | MySQL | ReactJs | Redux | Git | AWS | Agile Development | Memcached | Redis | RabbitMQ

## Career Experience

**Wolfram Institute, Remote**  
Affiliate Researcher

Sep 2024 – Present

Work on a Click to Copy project that aims to modernise and enhance the accessibility of the code used to create the iconic figures from Stephen Wolfram’s *A New Kind of Science* (NKS) using the Wolfram Language and Mathematica.

- Generate figures using computational methods and principles described in the book.
- Optimised code by using techniques in the Wolfram language to make it easy for researchers reading and using the book’s code to copy and run the code in their notebooks.
- Parse graphical data through tabulars and geometrical transformation.

**Soapbox Inc., Remote**  
Senior Software Engineer

April 2022 – Present

Lead all facets of storefront, order, inventory, warehouse, and shipping operations. Establish back-end algorithms to implement efficient React components for users. Utilise Docker for deployment of containerization process. Coordinate multiple third-party APIs and manage data received from all storefronts such as Amazon, Etsy, Shopify, and Walmart.

- Streamlined workflow by introducing new API integrations into the system that scaled to 20 daily warehouses with each warehouse handling over 1 million orders.
- Optimised performance by providing exceptional training to new junior engineers that saw an increase in productivity in development and feature acceptance by 30%.
- Maintained support for Shippo, UPS and Easypost carrier services like Fedex, UPS and DHLCommerce that increased the amount of new customers by 15%.

## Software Engineer

July 2020 – April 2022

Worked on integrating 3PL Logistic packaging technology in a system that enabled faster and better ways for our customers to manage their warehouses. Provided DevOps support and maintenance by implementing new scripts to automate the workflow of running code on AWS service.

- Optimised system performance by refactoring existing code to use newer and faster technology. This was a tremendous boost in the performance of the system, by 40% faster than the initial system.

## The-Bhub, Nairobi

Jan 2020 – July 2020

### Software Engineer

Manage system configuration and maintain source code for both server as well as client side. Automate deployment process of source code whilst ensuring customers are updated daily about the health of the system through automated notification. This saw an increase in positive customer feedback and growth in the system's daily user visits to 1 million users.

- Conducted research and posted new programming and examined findings for publication.
- Gained in-depth understanding of algorithms through my research for building a scalable system that scaled based on users visits. This system scaled to 2 million daily users.

## Andela, Nairobi

Jan 2018 – Oct 2019

### Software Engineer

Provided mentorship to the new engineers and helped guide the whole code-base. Established CircleCI CI/CD pipeline for automating testing components and deployment process, whilst maintaining a steady release cycle. Collaborated with DevOps team for migrating product to Jenkins pipeline hosted on servers. Created and maintained Relational Databases (PostgreSQL, MySQL) on GCP/AWS by using terraform for IAC.

- Integrated with third-party APIs, processed data, mentored engineers to attain top performance levels, which saw an increase in faster data processing and low latency in the system.
- Achieved system-level environment isolation and prepared complete containers by deploying containerization through utilisation of Docker. This ensured seamless deployment of our system and growth in productivity by 27%.

## Additional Experience

Software Engineer, Crafttux, Nairobi

Volunteer, Trend in Africa, Nairobi

## Education

Jun, 2024: Wolfram Summer School 2024 | Wolfram Research

Jan, 2024: Summer Course in Simons Computational Neuroscience Imbizo | Imbizo.Africa

Jun, 2023: Summer Course in Computational Neuroscience and ML | TRenD in Africa

2015 - 2018: B.Sc. in Computer Science | Dedan Kimathi University of Technology, Nyeri