

Hello, I'm Joshua Mabina

PRODUCT & SOFTWARE ENGINEER, DAR ES SALAAM, TANZANIA

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Skills & Competencies

Goal-oriented, Ownership Mindset, Persistence, Resilience, Leadership, Systems Thinking, Empathetic Communicator, Mentorship, Teamwork, Mindfulness, and Entrepreneurial Mindset.

Spoken and Written Languages: English, Swahili.

Tools & Technologies

What I am good at - Node/Express and PHP/Laravel for RESTful API and Web development, React for Web and Mobile development.

What I have worked with - Python/Django for Web and RESTful API development, Vue for Web development, JavaScript tooling with Grunt, Gulp, and Webpack, Database development with PostgreSQL, MySQL, SQLite, Neo4j, and MongoDB, Code collaboration, and Agile/Scrum project management with Git, GitHub, Bitbucket and Taiga, Automated Testing with Jest, Mocha, Karma, and PHPUnit, Bug Tracking with Sentry and Bugsnag, Cloud hosting with Amazon Web Services, DigitalOcean and Linode, Continuous deployment with CircleCI, Travis CI, Bitbucket Pipelines, and GitHub Actions.

Work Experience

Software (React) Engineer, IPF Softwares Ltd. (Full-time, Tanzania) - October 2020 - January 2021

IPF Softwares is a passionate team of software developers, designers, and innovators building digital solutions that drive human behavior and engagement. It does this with a genuine drive to help businesses in Africa stand out in the digital world, all through, custom design and development of web and mobile solutions.

Key responsibilities and duties

- Collect, digest and document our client's needs and requirements.
- Study and analyze the client's problem and domain to design the problem domain to yield functional and non-functional requirements and a domain (data) model.
- Design and implement user interfaces to fulfill the user requirements captured.
- Maintain customer relations, manage tight feedback loops, new feature requests, to be fixed.

Key achievement

We introduced our client to agile methodology and allowed us to roll out an MVP product to a user base (mostly teenagers) within four (4) weeks. This great achievement allowed us to retain this customer for future projects, something we are very proud of.

Software (React Native) Engineer, Yamee Group, B.V. (Contract, Remote) - November 2019 - June 2020

Yamee is an African food ordering and delivery startup building the next largest mobile commerce platform to bridge the employment gap in Africa. Yamee's sole mission is to help African merchants and drivers increase their earning opportunities. Available for download on the Android Play Store: [Yamee Merchant](#) and [Yamee Driver](#).

Key responsibilities and duties

- Design and implement wireframes for the merchant and delivery apps.
- Implement apps to allow merchants and drivers to list and sort new orders, accept or decline orders, complete accepted orders. Merchants and drivers are also able to receive notifications when a new customer order is placed.

Key achievement: Within a month of development, deployments, and bug fixing - we were able to onboard 40+ drivers and merchants onto the platform to begin serving our clients, in Netherlands, Botswana, and Tanzania.

Software (Python/Django) Engineer, TehamaLab ICT Solutions Ltd. (Contract, Remote)

- February 2020 - March 2020

Our client, IREX, a global development & education organization tasked us with building open-source data tool to improve and help them in their strategic use of data. The tool, which we call, Data Compass, helps teams and organizations under the supervision of IREX, manage surveys and analyze how data flows between actors (managers, administrators, and respondents) within an organization. The entire Data Compass source code is available on [GitHub](#) under the AGPL license.

Key responsibilities and duties

- Work with our client to design an open-source data-flow mapping tool, plan all the project tasks, and define the project deliverables. Use UML to design and implement the application domain and data model. Translate the domain and data model into database models, schemas, and migrations.
- Handle the front-end tooling with Webpack including but not limited to, sass compilation, and ES6+ to JavaScript compilation with Babel.
- Add implementation to handle management projects, surveys, and hierarchies, allowing the actors in the system (administrator, facilitator, respondent) to manage the flow of information appropriately.
- Add implementation to handle project survey invitations to system actors and guests outside the system.

Software (Node/Express) Engineer, IPF Softwares Ltd. (Contract, Remote) - Jan 2018 - Aug 2018

Our client, Invest Sou Sou, a social banking platform, inspired by informal village saving and loan traditions to modernize the way that people save and build stronger credit.

Key responsibilities and duties

- Handle the entire development and documentation of API suite of microservices to manage user bank and loan accounts, allow users to deposit and withdraw funds, allow users to manage their loan cycles, track their transactions and subscriptions.
- Handle configuration and integration of external APIs i.e. Stripe for managing payments, AWS Cognito for authentication, and AWS S3 for cloud storage, and AWS EC2 for deployment.

Software (PHP/Laravel) Engineer, IPF Softwares Ltd. (Contract, Remote) - March 2018 - June 2018

Tasked to design, develop and deploy a web-based software solution to support the #AfricaSDGsPhotos campaign by Sahara Ventures. Intending to promote sustainable development goals in Africa, Sahara Ventures launched a campaign to challenge freelance/corporate photographers and content-creators across Africa to Apply-Capture-Share SDG-themed photos.

Key responsibilities and duties

- Collect and digest client requests and requirements, and translate them into a project proposal to list and describe project phases, deliverables, and timeline to completion. Use UML to design and implement the domain and data model. Translate the domain and data model into database models, schemas, and migrations.
- Handle the front-end tooling with Webpack including but not limited to, sass compilation, and ES6+ transpilation with Babel.
- Add implementation to handle the management of campaign/competition which includes: management of actors (audience, photographers or candidates, judges, and administrators) their roles and permissions, and management of posts (or photos) by the candidates.
- Add implementation to handle the management of votes and comments on the photos by the audience or guests visiting the site and handle the scoring of high trending photos on site by assigned judges.

Software (PHP/Laravel) Engineer, IPF Softwares Ltd. (Contract, Remote) – May 2017 – February 2018

Tanzania Teachers' Union is a member-based organization of teachers from primary schools, secondary schools, education officers, instructors from teachers' colleges, and focal development colleges.

Tasked to design, develop and deploy a web-based application software to record, manage, and maintain Tanzania Teachers' Union (TTU) members' personal, employment (claims/arrears), and member information.

Key responsibilities and duties

- Work with the in-house software department and our client (TTU) to collect, discuss and digest software requirements and features; use Agile/Scrum methodology to estimate deliverables and timeline towards project completion.
- Design and implement the domain and data model using UML. Translate the domain and data model into database models, schemas, and migrations using Laravel.
- Add implementation to handle the management of user information and their roles, management of employer and employee information, management of claims made by employed teachers, and handle the generation of user-friendly reports for the key decision-makers and the office of the General Secretary of Tanzania Teachers' Union.

A project demo is available upon request.

Partner & Software Engineer, Irabu Systems Ltd. (Tanzania) – February 2013 – November 2017

- Provide leadership and technical guidance on our internal product development.
- Work with our clients, all the way: from the product planning stage to the deployment stage to ensure the success of their projects.
- Handle application architecture and design for our customers who come to us with existing code-bases to rebuild/refactor and/or implement new features.

Education

The University of Dodoma (Tanzania) – BSc. Computer Science (2013 – 2016)

Dropped out in my final year (2016) to build a startup product/company.

Relevant Coursework: Distributed Database Systems, ICT Project Management, Software Development, Data Mining, Artificial Intelligence, and Open Source Technologies.

Special Projects: (1) Built a C/C++ compiler (tokenizer and parser) in Java (2) Built a suite of open-source digital forensic tools to verify the authenticity of image, audio, and video files. The entire codebase is on [GitHub](#).

Certifications and Awards

Awarded a **Bronze Medal Certificate being in recognition of participation and exhibition of excellence as the 2nd runner-up contestant in the INFOMATRIXAFRICA** held in Tanzania. (2012) - Designed, developed, and deployed a Hospital Management Information System using the C++/Qt framework.

Awarded a **Bronze Medal Certificate in recognition of participation and exhibition excellence as the 2nd runner-up contestant in the INFOMATRIXAFRICA** held in Tanzania. (2011) - Designed, developed, and deployed a text-speech synthesis tool using VB6.

Awarded the **Most Committed Volunteer and Dedicated Photographer** at Loyola High School. (2012).

Awarded a **Diploma in Computer Science at Loyola High School**. Relevant coursework and technologies covered include C/C++, Datastructures, and Algorithms, HTML, CSS, JavaScript, and VB6.

Interests

Using data and algorithms to unlock profitable opportunities. Working passionately with entry-level developers to provide technical guidance and mentorship. Writing and speaking on all things Vim and JavaScript. Photography, and cinematography. Marathons and triathlons.

Referees

Lally Elias | lallyelias87@gmail.com | +255 714 095 061

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