Miles Obare

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EXPERIENCE

- **Microsoft Corporation**   Nairobi, KE
  Software Engineer II   *May 2019 - Present*
  - **OS Application Compatibility**: Building tools that detect and mitigate application compatibility issues when a customer is updating/upgrading the OS.This involves analysing the application OS API coverage and applying blocks or mitigations in form of shims that intercept API calls to the kernel.
  - **Azure Migration Compatibility**: Building cloud tools to determine app incompatibilities on the OS when a customer is migrating their server workloads to Azure.I am building a big data processing framework based on Apache Spark to analyse telemetry from customers to calculate the probablity of having incompatibities on Azure.

- **Betika**   Nairobi, KE
  Software Engineer, Backend   *Aug 2018 - May 2019*
  - **Microservices**: Containerized the backend services using Docker and moved the API to a microservices architecture using Kubernetes.Set up a CI/CD pipeline and a testing framework for automated deployments.This reduced deploymnet times for new features and number of bugs that go into production.
  - **Digital Wallet**: Built a digital wallet in Java for users to deposit and withdraw cash.Integrated the wallet with existing service providers: MPESA and Airtel Money. Set up a failure recovery mechanism for failed transactions.
  - **Data Platform**: Built a data processing and analysis platform on top of Apache Spark,PostgreSQL and BigQuery to inform other departments on the user behaviour and performance of the product.

- **Loanbee Limited**   Remote
  Software Engineering Consultant   *Sept 2015 - Dec 2016*
  - **XPRIZE BomaEd**: BomaEd is a learning platform for kids in areas with no teachers. Researched the initial product and developed the prototype. Built a custom android based OS that can be easily installed on any device for the kids.
  - **KaziPlus**: Helped in the development of the recruitment site for developers and designers.

- **Deveint Limited**   Nairobi, KE
  Senior Software Engineer   *May 2016 - Present*
  - **Mobile Development**: Started the initial team of Android and iOS developers.The team has since grown to over 4 developers and over 5 apps deployed to Playstore and Appstore with over 100k downloads in total.
  - **Nairobi Securities Exchange**: Led a team of 5 engineers to develop Android and iOS apps that enable users to access real-time trading statistics. Developed the client android and iOS applications.
  - **REST API**: Implemented the accompanying REST API for the apps and automating the conversion of 8GB worth of historical data from Excel to a PostgreSQL database.Involved with authorisation, unit and integration testing and deployment of the API.
  - **Continuous Delivery**: Led the deployment of the company's server side code to Linux servers on AWS and GCP. Automated the process with Travis CI and reduced deployment time to monthly releases.
  - **Linux System Administration**: Formed the first cyber security team in the company to protect the servers, reducing the number of successful hackings significantly.Ensured accountability in server access by disabling root login, using 2FA , requiring all developers use SSH keys and creating a role-based access system using Bash.
  - **Code quality**: Required all developers to use Git and Bitbucket to version their code. Set up the deployment pipeline using the Bitbucket API and git hooks. Enforced unit and integration tests in code before deployment.Improved bug tracking over two-fold.

- **Beyonde Labs**   Remote
  Software Engineering Consultant   *Sept 2015 - Dec 2016*
  - **XPRIZE BomaEd**: BomaEd is a learning platform for kids in areas with no teachers. Researched the initial product and developed the prototype. Built a custom android based OS that can be easily installed on any device for the kids.
  - **KaziPlus**: Helped in the development of the recruitment site for developers and designers.

- **Webtribe Limited**   Nairobi, KE
  Software Engineer Intern   *May - Sept. 2015*

- ○ **National Health Insurance Fund**: Redesigned the National Health Insurance Fund(NHIF) application following Material Design principles , increasing downloads to over 100K on Playstore, fixed previous race conditions and crashing issues.
  - ○ **Soja**: Soja is a visitor management system. Designed and developed the mobile application. Deployed the server side code to the company's servers and set up the initial schema.

- **Jomo Kenyatta University of Technology**   Nairobi, KE
  Student Leader   *May 2017 - Present*
  - ○ **ACM ICPC - Team Leader**: Led a team of 9 students to represent the school in the ACM-ICPC South African Finals.Finished third overall. Organizing weekly algorithmic contests based on problems from Hackerrank and Codeforces.
  - ○ **Volunteer Tutor**: Introduced over 40 students to machine learning using Tensorflow by building a Convolutional Neural Network(CNN) that categorizes objects in images.Taught a 4-week introductory course on Android basics and unit testing.

PROJECTS

- **MPESA SDK**: Open source SDK to enable developers to easily accept mobile payments in their apps.
- **IZI Address**: A new addressing system based on Open Location Code and what3words for people living in areas with no official addressing system.
- **Kenya Decides**: A platform for Kenyans express their political views openly and track accountability from leaders.

EDUCATION

- **Jomo Kenyatta University of Science and Technology**   Nairobi, KE
  Bachelor of Engineering in Electrical and Computer; GPA: 3.5