

# Microsoft 4Afrika



Photo © Microsoft 4Africa



### Program Type

Internship; Apprenticeship and Online programs



### Medium of Delivery

Combination of in-classroom, online and on-the-job training



### Program Duration

3-6 months for Interns4Africa and the AppFactories



### Annual Participants

~500 (AppFactories); ~250 (Interns4Africa)



### Organization Type

Corporate supported



### Year Established

2013



### Average Fees per Participant

Free



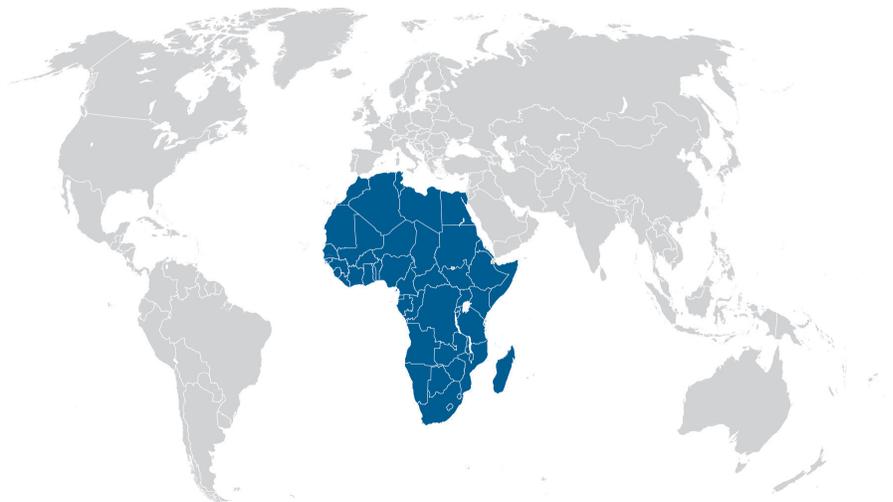
### Number of Alumni

~1,400 (AppFactory); ~530 (Interns4Africa)



### Geographic Coverage

Across Africa on ground presence in Nigeria, Ghana, South Africa, Egypt, Uganda, Kenya, Rwanda, Mauritius, Malawi and Ethiopia.



## COMPANY OVERVIEW

**4Afrika is a Microsoft initiative focused on improving digital access and supporting innovation in Africa. The organization's Interns4Afrika program leverages Microsoft's partner network across the continent and combines rich in-classroom and virtual training with real-world work experience through internships.**

For more information, visit:

<https://www.microsoft.com/africa/4afrika/>

### Mission Statement

To enable Microsoft's global mission in Africa, empowering every person and organization with the access, skills and opportunities for innovation to help Africa achieve its true potential and lead the technology revolution.

“The program was created to take a hands-on approach, through which we supplement students' theoretical knowledge with practical experience, real-world projects, and also soft skills development, things that they need to be effective in the modern workplace.”

– Ryno Rijnsburger, Chief Technology Officer, Microsoft4Afrika

## Key Innovations

Interns4Afrika has five distinct program characteristics:

1. Interns4Afrika helps address two challenges in Africa: high youth unemployment and the shortage of talented IT employees.
2. Microsoft partner organizations are able to hire Microsoft-certified interns and receive recruitment and training support from Microsoft.
3. A peer-learning approach allows more experienced learners to guide novices.
4. Virtual classroom training is used to address skills gaps at the beginning of each program.
5. Microsoft's deep partner network provides internship opportunities that are beneficial for participants and placement organizations.

## Program Overview

4Afrika is a Microsoft initiative focused on accelerating Africa's economic development by providing affordable access to the Internet, creating skilled workforces, and investing in local technology solutions. This case study focuses on two employment-oriented, youth-focused internship and apprenticeship programs: Interns4Afrika and AppFactory.

But 4Afrika also offers three other programs: Virtual Academy, an online platform for digital skills training, as well as MySkills4Afrika and PopUp Lab, two programs designed to support and mentor Microsoft partner organizations. The Microsoft Virtual Academy has reached more than 1.6 million people across the continent. Interns4Afrika and AppFactory have led to employment for more than 1,600 graduates.

## Program History

Microsoft4Afrika's skills development program was established in 2013 to bridge the gap between post-secondary education institutions and the labor market. Microsoft started investing in partnerships, start-ups, and

youth across the continent with the goal of fueling economic development and enhancing digital skills. The program embraces cloud technology to support productivity, inclusion, and digital transformation.

### Types of Digital Skills Imparted

Interns4Afrika programs focus on intermediate and advanced digital skills. Intermediate skills in the Virtual Academy and Interns4Afrika programs include:

1. Social media marketing
2. Cloud-based collaboration
3. Data platform management

Advanced skills in AppFactory and include:

1. Coding and software development
2. Building and managing enterprise, mobile, web and IoT apps

### Business Model

The 4Afrika initiative functions as a market and ecosystem development engine for Microsoft. The company, through 4Africa, seeks to invest in the continent's technology ecosystem, develop talent and increase the skilled workforce. This allows Microsoft to access the market as both a source of talent and customers.

Interns4Afrika and AppFactory are supported financially and operationally by organizations within Microsoft's partner network in Africa. These groups benefit from their participation as they gain access to a pipeline of IT talent.

Microsoft benefits from this training as it builds literacy in Microsoft tools and platforms. This drives the ongoing consumption of Microsoft products and solutions, such as the Azure cloud computing service.

## PROGRAM OFFERING AND TARGET PARTICIPANTS

### Program Offering

4Afrika's approach to skills development uses a blended-learning approach that combines in-classroom activities with virtual learning and on-the-job training.

4Afrika runs Microsoft Virtual Academy 4Afrika, a cloud-based learning platform that makes digital skills training more accessible and convenient for people across the continent. The organization also runs programs designed to help local companies that want to use technology solutions to advance and grow their business. MySkills4Afrika and PopUp Lab are programs aimed at giving organizations access to Microsoft experts who can provide mentorship and networking.

The initiative's two employment-focused digital skills training programs are:

1. **Interns4Afrika:** Interns4Afrika targets unemployed and underemployed youth across Africa and helps them gain skills through on-the-job training with a Microsoft partner organization. Participants are placed in one of these companies for three to six months and choose between a training path in marketing, sales or technical skills. At the end of the program, interns are trained for the job and often are evaluated for a role with the host organization.
2. **The AppFactory:** AppFactory operates across 18 academies and targets recent IT graduates who can benefit from hands-on software development experience. Participants work alongside senior software engineers on real-world projects and develop practical digital skills over a six-month period. This program acts as a bridge between traditional post-secondary education and practical industry needs.



Photo © Microsoft. 4Afrika

### Target Participants

Microsoft recognizes the huge untapped potential of youth in Africa. Its training initiatives aim to address the shortage of digitally-skilled workers across the continent. Employers in Africa say that finding skilled workers is a major constraint to their growth. Technological advancements and the changing job landscape are widening this gap. 4Afrika aims to reduce it through industry-linked training programs.

Many African youth are graduating with degrees that do not adequately prepare them for the needs of the modern workplace. 4Afrika gives participants the opportunity to develop in-demand technical and soft skills through a blended-learning and internship experience. Most participants can expect to leave these programs with a job at a Microsoft partner organization or are able to secure one within three months of graduating.

4Afrika's skills development programs target Africans ages 18 to 35 who are looking to develop modern technical skills and advance their careers. Interns4Afrika and the AppFactory require applicants to be pursuing higher education or to have completed an undergraduate or postgraduate course in business-related or IT fields within the past year. AppFactory is primarily geared towards IT graduates.

4Afrika reaches out to potential participants through online and social media marketing efforts, online jobs boards such as Fuzu, Microsoft partner organizations, and affiliate universities across Africa.

### Key Challenges and Solutions

The program faces a dearth of sufficient office space and resources at partner organizations in Africa, as well as qualified mentors for program participants. Microsoft has attempted to mitigate this by expanding its network of partners and moving towards a peer-to-peer learning approach within its AppFactory.

Program organizers also have found it difficult to overcome language barriers. 4Afrika programs are provided in English and therefore have been unable to expand into the French-speaking regions of Africa. 4Afrika is planning to address this by developing its programs in other languages, including French.

Adapting to constantly changing employment requirements and new technologies is a further challenge. Microsoft uses its partners to identify employer needs and new advancements for which skills training is required.

## INTERNS4AFRIKA

### Program Overview

Interns4Afrika was launched in collaboration with Microsoft's partners in Africa to build a Microsoft-certified talent pipeline. The program places students and recent graduates in a six-month internship and provides digital skills training through applied work experience.

Interns4Afrika is active in around 150 partner organizations across 21 African countries, with about 80 positions awarded twice a year in February and June.

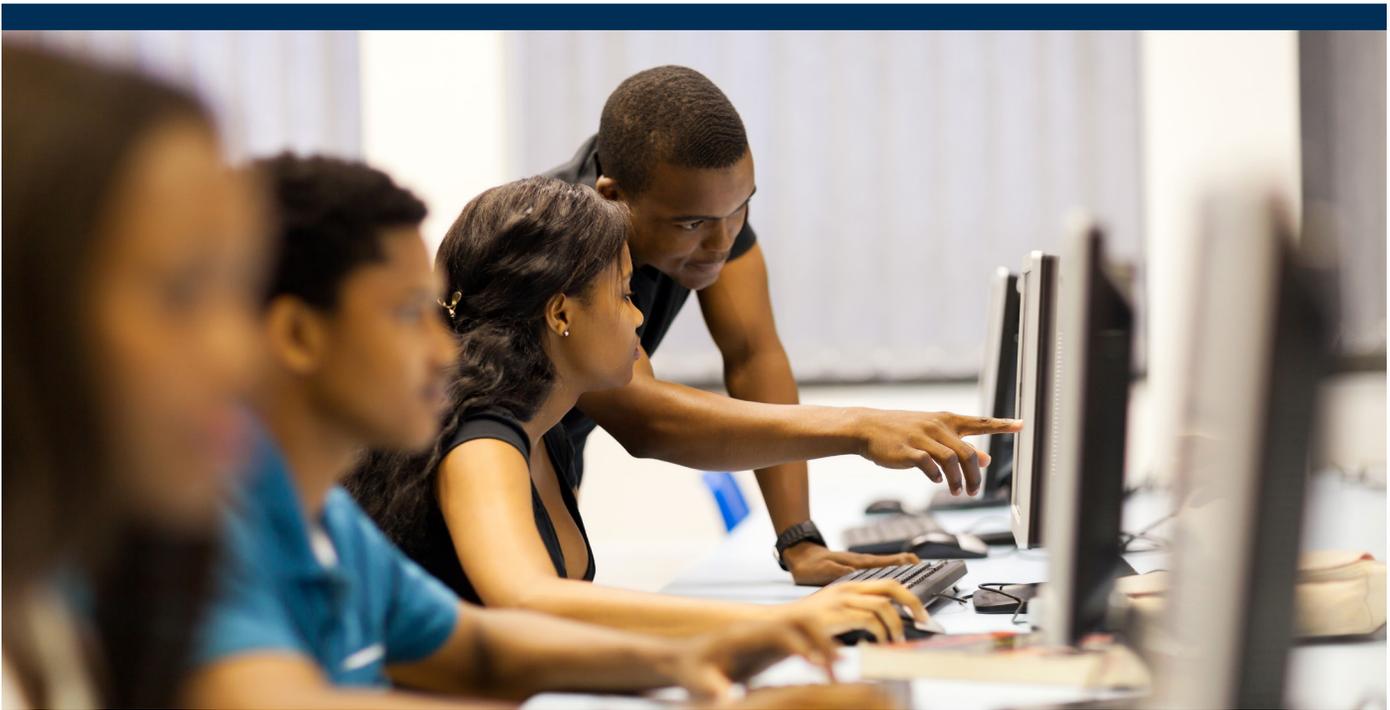


Photo © Microsoft. 4Africa

## Pre-program Activities

Microsoft recruits and integrates partner organizations as well as participants for the program. Companies interested in joining the Interns4Afrika program apply to host interns. They specify their requirements for interns, including which intake cycle they are recruiting for and the number needed.

Microsoft is open to partners from within the network as well as external partners who are able to provide a suitable environment and essential resources for interns. The ability to pay stipends and provide hardware are key considerations for Microsoft when selecting partner organizations.

## Application and Selection

The Interns4Afrika program is highly selective. Participants apply through the Microsoft application portal (Nigeria receives almost 500 applicants a cycle). Microsoft reviews the applications and around 50 make it to the phone interview stage. Only about 15 of these 50 applicants are invited to interview with the host partner organizations for a final round. From these, roughly five are selected as interns.

## Program Approach and Format

Microsoft partner organizations recruit participants locally and place them in sales, marketing or technical support roles with a high information and communication technology

focus for six months. Interns work in a virtual classroom for the first three months of their internship. The virtual training includes self-study as well as teacher-led instruction. The training aims to equip participants with the necessary skills for their upcoming roles. Except for the first three months, monthly training sessions take place throughout the internship to ensure continued professional development.

Interns are provided a monthly stipend and accommodation by the partner organization. They work on ongoing projects within the company and learn through collaboration with colleagues. Internships are structured into three ICT intensive paths for students to choose from: marketing, sales, and technical.

1. Sales: This path trains interns how to use digital tools, such as customer relationship management systems to improve customer management and drive sales.
2. Marketing: This track explores methods of using technology to engage with customers in new ways, including social media marketing campaigns. It also includes development and execution of marketing plans.
3. Technical: The technical path helps interns develop skills on specific Microsoft tools, including:
  - a. Azure—a building and managing enterprise for mobile, web and Internet of things apps

- b. Office 365—a platform for cloud-based collaboration and productivity tools
- c. Data platform—a variety of solutions for using data and insights to improve customer value and operational experience

Following the initial training, interns also are given an opportunity to take the exams needed to earn Microsoft Certification. This certification is highly valued by Microsoft partner organizations and enhances student employability.

### **Key Innovations**

Interns4Afrika helps address two challenges in Africa. The first is high youth unemployment and the second is the shortage of talented IT employees across the continent:

1. Partner organizations are able to hire Microsoft-certified interns, with Microsoft providing the recruitment and training support.
2. Mentorship from partner organizations, combined with virtual classroom training at the beginning of each program, has proven to be an effective model for closing the skills gap in today's industries. Companies are expected to play a role in training and mentoring young talent and are supported by Microsoft's network and expertise.

## **THE APPFACTORY**

### **Program Overview**

Microsoft recognizes public and private sector organizations across Africa are finding it difficult to recruit capable software engineers. As a result, they often import technology solutions that do not adequately capture local realities. At the same time, thousands of local information technology graduates are either unemployed or underemployed due to a mismatch between the skills taught in university and those required by technology companies.

The AppFactory bridges the competency gap for local graduates, giving them much-needed skills training in industry-directed areas so they are able to get jobs.

The first Microsoft AppFactory was launched in 2013 in South Africa, through a partnership with the Johannesburg Centre for Software Engineering. It provided interns with a paid internship at the TechnBraam start-up incubator space in Braamfontein.

There are currently 18 AppFactory academies operating in African countries, including Nigeria, Ghana, South Africa, Egypt, Uganda, Kenya, Rwanda, Mauritius, Malawi, Botswana and Ethiopia.

### **Scale-up Model**

A major innovation in 4Afrika's AppFactory program is its franchise model, which has helped expand operations across the continent. AppFactory is set up in collaboration with public and private sector partners through the following process:

1. An AppFactory "host" provides the physical space and training resources for the center. This is often a partner university or IT company with an interest in building the pool of tech talent in the country, such as the United States International University Africa in Kenya.
2. AppFactory partners, often local corporations, contribute resources and projects for participants to complete. Tulane University, in partnership with AppFactory, has apprentice developers working on extending software applications in Tulane's eHealth suite.
3. Microsoft provides an operational blueprint, professional networks, training resources, and the digital tools required for software development.

### **Application and Selection**

Interested participants submit an online application to an AppFactory. Applicants are selected based on aptitude tests as well as personal interviews. Incoming participants are required to have basic coding proficiency.

## Program Approach and Format

AppFactory university or technology company partners design projects for participants to work on throughout the program. Apprentice developers then spend six months working with senior Microsoft software technicians and partner organizations to develop the project and learn essential workplace skills. The AppFactory goal is to enhance a participant's theoretical IT learning experience through real-life applications. Cloud computing, secure coding, data analytics, and machine learning are among the digital skills students learn throughout the program.

## Program Highlight

### Malawi AppFactory in Collaboration with UNHCR

4Afrika opened an AppFactory in 2017 with the United Nations High Commissioner for Refugees at Dzaleka, the largest refugee camp in Malawi. Microsoft 4Afrika provided Wi-Fi connectivity throughout the settlement with the support of local Internet service providers for a year. It also provided 1000 smartphones, 40 laptops, and 10 tablets to students.

The program selected 31 students based on a highly competitive aptitude test for the first AppFactory program. Microsoft designed a foundational program since students had very little opportunity for post-secondary education. The six-month program taught basic digital literacy and intermediate software skills to give participants the prerequisite skills needed to participate in the AppFactory program.

Participants of the Malawi AppFactory program have developed technology solutions that range from an information app for new arrivals to one that manages schedules for allocation of food.

## IMPACT

### Learning Goals

4Afrika programs have helped African youth develop intermediate and advanced digital skills as well as soft skills and experience working in a team.

**Interns4Afrika** offers its participants three digital skills paths to choose from:

1. The marketing and sales paths focus on soft skills and team work as well as some basic and intermediate technical skills such as word processing social media marketing, and communication strategies.
2. The technical path teaches skills such as data platform management, building and managing apps, and cloud computing.

**AppFactory** focuses on advanced programming and development skills to help graduates independently develop applications and other technology solutions.

### Links to Industry

Microsoft has an extensive partner network of some 1,200 organizations in Africa, including established businesses as well as start-ups in retail, energy, IT solutions, and cloud computing. These partner organizations host interns and offer those who are successful permanent roles in their companies. They also recruit alumni from other 4Afrika skills programs. Microsoft provides mentorship and support to its partners as a part of the MySkills4Afrika programs, which helps to further build and expand their partner and alumni network.

### Employment Process

**Interns4Afrika** gives participants the opportunity to work at one of 150 partner organizations across Africa. After the program, about 90 percent of these participants find jobs outside or with the host organizations.

**AppFactory** helps connect and place its graduates by leveraging partner organizations. Around 85 percent of AppFactory graduates have secured employment within three months of graduating.

4Afrika also uses its alumni network to provide graduates of the Interns4Afrika and AppFactory programs with a platform to connect with additional starts-ups and tech firms. Alumni offer mentorship and networking opportunities to participants.

### Employer Perspectives

Microsoft partner organizations benefit from hiring recruits who are closely linked to the Microsoft ecosystem. These participants are trained with the latest technology solutions and receive Microsoft certification. For Microsoft's smaller partners, the ability to hire pre-trained staff helps add talented employees quickly. Employers have found the

recruits from the Interns4Afrika and AppFactory programs bring fresh thought into the organization and help them develop a stronger relationship with Microsoft.

### Impact

4Afrika has helped individuals and organizations across Africa learn new skills and become better prepared for the digital future of jobs. About 1.6 million people have received training through Virtual Academy 4Afrika, and more than 1,500 partner organizations have been trained in virtual classrooms.

Interns4Afrika has taught over 530 interns, 450 of whom were recruited by their host organizations after their internship. More than 1,400 apprentices have graduated from the AppFactories, 1,200 of which found jobs within three months of graduating. Microsoft 4Afrika also has provided one-on-one mentorship and technical support to

### Learner Experience



## Gilbert Ngetich, Interns4Afrika alumni

- Ngetich interned at M2M Systems in Nairobi, Kenya and now works as a Cloud Engineer at M2M
- Ngetich's brother suggested him for an internship through the 4Afrika program, as he had a strong work ethic but suffered some financial challenges
- Ngetich completed a six month internship, developing cloud computing solutions on the Microsoft Azure platform. In this role, he was able to develop technical, communication and problem solving skills
- Ngetich joined M2M as a full time Cloud engineer and has had the opportunity to participate in the 'Microsoft Inspire' partner conference in Washington D.C. This conference provides the opportunity to learn, network and form new business contacts
- The Interns4Afrika internship helped Ngetich develop digital and career skills in a real work setting, and has given him the confidence to advance his career
- Ngetich is now looking to pursue a postgraduate program in a United States university

(Profile from 4Afrika website)

82 start-ups and helped fund 65 start-ups that have since generated \$5.1 million in reciprocal investments.

## OPERATIONS

### Program Evolution

The 4Afrika skills development programs were launched with the goal of developing a workforce that could bridge the technical skills gap for Microsoft partners and other organizations across Africa.

The program has evolved over time and now measures its success by its alignment to Microsoft's cloud-growth strategy as well as its African partners' access to talented employees training.

The Interns4Afrika program was launched in 2014 as an extension of Microsoft's internship program, which focused on placing interns into the company's Africa offices. The program started with three streams and has evolved to include new training roles such as Azure and data platform management.

The AppFactory program has shifted from a focus on software craftsmanship and Microsoft tools to other requirements of the modern workplace such as cybersecurity, artificial intelligence and big data. The program also trains students on open source platforms such as Python. The franchise-like model now allows private or government organizations to set up AppFactories with the support of Microsoft's detailed operational blueprint, learning resources, and partner network.

### Path to Scalability

Microsoft4Afrika is constantly evolving to increase its impact and reach more learners. As the AppFactory program expands throughout Africa, program designers are looking to refine the standardized template so that local partners and instructors can set up an AppFactory quickly and efficiently.

Interns4Afrika hopes to grow by broadening the candidate eligibility criteria. The program wants to include candidates who may not have college degrees but have the relevant soft skills and drive to succeed in the program. By providing them with the right training, these candidates will gain the opportunity to flourish in their jobs.

Interns4Afrika also plans to expand its partner network through marketing channels and offer the program in different languages, including French, to reach a wider range of African students.

## KEY PEOPLE



### **Amrote Abdella**

*Director of  
Microsoft4Afrika*

Abdella holds a bachelor's in political science from Davidson College in North Carolina, and a master's in international economics development from Brandeis University in Massachusetts. Prior to joining Microsoft, Abdella worked for, among others, the World Economic Forum, the World Bank, the Global Hunger project and the Grameen Foundation. She has focused on financial services, policy guidance and economic development for Africa. Abdella has been the Regional Director of Microsoft 4Afrika Initiatives since 2013.