# ANNUAL REPORT

JULY 2017 - JUNE 2018

DATA SCIENTISTS NETWORK FOUNDATION
(DATA SCIENCE NIGERIA)

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# WELCOME

A rapidly growing universal truth today is that all roads lead to data. Data and its application in Artificial Intelligence (AI) can become a sustainable basis for socio-economic development and breakthrough innovations that address the millennium development goals (MDGs).

Reflecting on the past year, the extensive activities and focused intervention of Data Science Nigeria demonstrate how Nigeria is setting itself up for a period of unprecedented growth in harnessing the benefits of intelligent systems to drive incremental local capacity, skill development and socio-economic development.

Since our inception in December 2016, the Data Scientists Network Foundation has been working to create a range of capacity building initiatives to advance the socio- economic development of Nigeria at both the local and national levels.

We are achieving this by taking a solution-oriented approach to the application of machine learning to solve social and business problems, particularly the MDGs and galvanizing the data science knowledge revolution for sustainable value creation in Nigeria.
Our approach is to further the MDG's goals by understanding the data imperatives and how local insights can accelerate a focused application of data science for the development of Nigeria's emerging market through job creation, data-centric entrepreneurship and localised innovations.

On a global level and over the past two centuries, general-purpose technological advancements have been the driving force of economic growth. In recent years, artificial intelligence has been considered to be an influential general purpose technology that is increasingly being adopted by all industries.

AI has a huge potential to drive economic growth and to increase productivity. In fact, research by Accenture Institute for High Performance, in collaboration with Frontier Economics shows that AI has the potential to double growth rates in 12 developed countries by 2035. This represents an expected increase of 40% in labour productivity. AI and data science are likely to have even more impact in developing countries by solving problems in essential sectors such as finance, healthcare, farming and resource provision.

In Africa, technological innovation is critical to enhance economic growth and improve performance in essential sectors. Foreign investors are attracted to Africa because of its high population and economic growth, large base of middle class consumers, increasing investments in infrastructure and its improving educational levels. This must be complemented with a rich cluster of talents in AI and advanced data analytics who can leverage this data revolution to drive further foreign investment in the

Nigerian economy.

2017/2018 has been a most exciting period for Data Science Nigeria. One of our members, Zynab Ishaq Musa and her team at the Ahmadu Bello University, Zaria, Nigeria won the regional prize of the US-based Hultz Prize Award for a project on the use of machine learning to solve energy problems. Our mentorship programme, Mentor African Data Scientists, kicked off with over 100 mentors and mentees. We now have over 100 PhD-level academic and industry practitioners across the world who are mentors supporting the real-world application of learning.

Another significant event was the launch of a dedicated Artificial Intelligence Community Hub at the University of Lagos. This serves as a physical space that supports students who want to explore multidisciplinary research in AI via Skype-based mentoring classes with international experts and local master classes. It also provides a platform for regular meet-ups, masterclasses and a library stocked with the latest theoretical books, beginners series and inspirational AI series. We hope that with the available data collection tools and high-powered devices at the hub, more students will explore high-scale AI in areas like precision farming, health and financial inclusion.

Indeed, I can say that data is now the core of today's business and the ultimate enabler of the evolution of the 21st century society. The future belongs to those who have and are able to leverage big data to gain actionable insights in ways that help to guide business decisions, enhance service provision to customers, and mitigate risks.

I am proud to present the Data Science Nigeria 2017 – 2018 Annual Report. We thank all of you for your continued support as partners, participants, volunteers and industry/academic partners. With your continued support, we're helping to create a positive revolution for Nigeria and the world at large.

OLUBAYO (BAYO) ADEKANMBI
Convener, Data Science Nigeria

# ABOUT THIS REPORT

Our Annual Report provides an overview of the work of Data Science Nigeria from July 2017 to June 2018, and reviews the key activities of the non-profit and its members.

## AT A GLANCE

Data Science Nigeria is a non-profit organization run and managed by the Data Scientists Network Foundation, with the vision of accelerating Nigeria's social and economic development through the solution-oriented application of machine learning to solve social and business problems and to galvanize a data science knowledge revolution in Nigeria and beyond.

## VISION

Data Science Nigeria's vision is to leverage data science for the development of an emerging market that aids the creation of well-paying and valuable jobs and the development of local solutions to help our businesses and society.

Specifically, we aim to train, mentor and inspire 100,000 Nigerian undergraduates and graduates to build new skills in advanced analytics and data science and create 1 million jobs/opportunities in these areas. This will have a multiplier effect on Nigeria's economy when innovative data-centric solutions are built to accelerate economic well-being in areas such as agriculture, health, security, governance, education, financial inclusion and transportation.

We achieve this by adopting a practitioner-led model in which experienced and hands-on data scientists in Nigeria and in the diaspora train and mentor Nigerians via face-to-face via virtual coaching classes, and through project-based support and holiday bootcamps funded by donations from individuals and corporate sponsors.

Data Science Nigeria is also leading the PhD4 Innovation Hub project, which it is proactively driving the application of Big Data in solving problems in the areas of financial inclusion, agriculture, health and social well-being.

## OUR AI ROADMAP

- Capacity building of young Nigerians in AI, Data Science, Big Data and Machine Learning through exposure to world-class curriculum from renowned institutions in the USA and the UK complemented with global competition-based learning platforms (Kaggle)

- Supporting the application of AI, Data Science, Big Data and Machine Learning in Nigeria, Africa's largest economy and largest talent base in terms of population

- Bridging the academic and industry gap by creating an innovation platform to support high-impact data-oriented academic innovations focussed on scalable local solutions that can drive socio-economic development and profitable business use cases. This will contribute to reform the economy as well as stimulating and sustaining growth.

2017

# HIGHLIGHTS

## MENTORSHIP PROGRAM:

The Mentor African Data Scientists mentoring program is designed to coach, guide and inspire Nigerian and African data scientists and draws on experienced professionals and academics, the majority of whom are based in the US, UK, Canada and South Africa.

## BOOTCAMP:

In 2017, the 2nd Data Science Nigeria Bootcamp was held, supported by Microsoft, 4Afrika, Interswitch, Diamond Bank, OneFi, L5Lab, Keoun.ng, KPMG, ProShare Nigeria, Nigerian Bureau of Statistics, DataCamp, BusinessDay, CFATech.ng, BrandCrunch and the Machine Intelligence Institute of Africa. Students from all over Nigeria participated.

2017

# HIGHLIGHTS

## HULTZ PRIZE AWARD

DSN member Zainab Musa won the 2018 Hultz Award for applying machine learning to solve energy challenges.

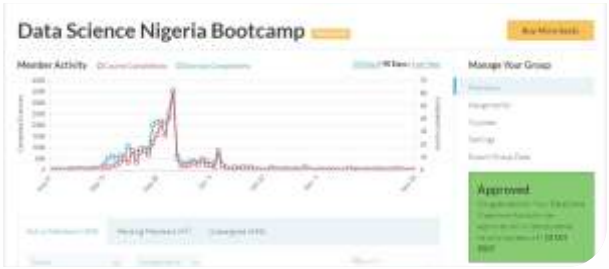
## BIG DATA SUMMIT

Organized by Data Science Nigeria, Nigeria's first Big Data economy Summit was held in 2017. The event was aimed at discussing the role of data in accelerating business growth and to drive for the use of best practices in the use of data with a keen focus on generating insights, customer privacy and data security. It was attended by leading experts, major players in the emerging big data ecosystem, as well as participants from the industry, developer and academic communities.

KEY 2017

# HIGHLIGHTS

**5,120** Participated in at least one of the post-study quizzes




**11,234** Participated in offline and online learning initiatives in partnership with Datacamp and the Microsoft EDX platform

**307** Attended high impact learning bootcamps

**100+** PhD-level academic and industry practitioners world-wide are mentors supporting real-world application of learning

**38** Direct job placements and internships offered to young Nigerian data scientists

Strategic partnerships were secured with leading global organizations including Microsoft, 4Afrika, Interswitch, Diamond Bank, OneFi, L5Lab, Keoun.ng, KPMG, Proshare Nigeria, Nigerian Bureau of Statistics, DataCamp, BusinessDay, CFATech.ng, BrandCrunch and the Machine Intelligence Institute of Africa.

**4** Innovative Nigerian-centric data science products supported

# CHANGING THE FUTURE OF NIGERIA USING ARTIFICIAL INTELLIGENCE

## 1. DATA AS A TOOL FOR NATIONAL SOCIAL AND ECONOMIC DEVELOPMENT

Data Science Nigeria's focus is to use data to answer and address key local socio-economic issues and help drive the achievement of Millennium Development Goals (MDG). The power of big data and analytics enables better two-way communication and real-time decision-making, thus driving effective development outcomes. Some examples of how we are using data to do this include:

**PREVENTABLE DISEASES -** What patterns are there in the spread of diseases, drug use/abuse, and can the causes be understood to create proactive intervention? How many hospitals/medical facilities/chemists/pharmacies are active per day, and what is the closest distance to each of these per citizen? How can algorithms be used for basic diagnosis (for example, the use of image classification for visually observable diseases/malnutrition in children or malaria detection)?

**FINANCIAL INCLUSION -** How can we increase financial inclusion by using alternative data to build friendlier credit risk algorithms? For example, can drone-captured farm images be a good predictor of farm yields and an indicator of the farmer's potential to repay a loan? Can a social calling network be used as a real-time instant loan guarantor? Where should the next ATM or mobile money agent be deployed to support profitable financial inclusion? How can satellite image data help to identify areas of poverty clustering for targeted intervention?

**GOVERNANCE AND TRANSPARENCY -** How can we drive accountable governance through community reporting, feedback on quality, and the availability of basic utilities such as real-time electricity availability, water quality, improved sanitation conditions, and quality of life and reported ill health per location?

**URBAN PLANNING -** How can a state/nation design a realistic method of city planning and expansion using multiple data sources?

## 2. DATA AS A TOOL FOR JOB CREATION

Data science is one of the fastest growing industries in the world today. The solution-oriented application of machine learning to solve social/business problems has the potential to position Nigeria as an outsourcing hub for international data science, advanced analytics and big data projects. This will reduce Nigeria's unemployment rate, provide well-paying jobs for Nigerian data scientists, and drive an increase in technology-driven entrepreneurship in Nigeria.

A key challenge facing data science and AI industries

is the skill shortage, particularly people with the deep analytical skills required to mine the data. Information technology leaders are focused on methods to attract and retain good talent as this is critical to the new information economy.
Annual demand for the fast-growing new roles of data scientists, data developers, and data engineers globally is expected to reach nearly 700,000 openings by 2020.

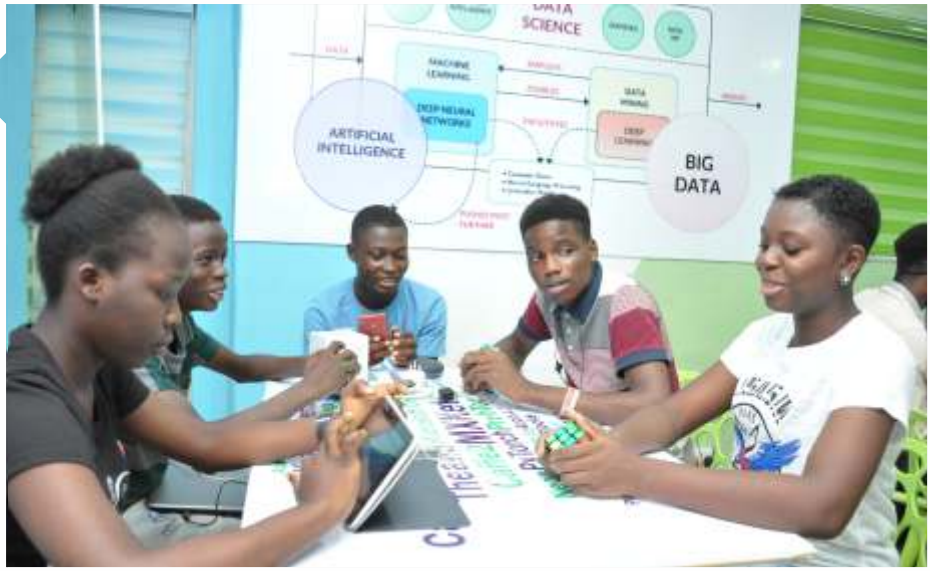
However, we understand that in order for Nigerians to maximise their options through this growing opportunity we must first build the necessary skills and raise the standards of learning quality in a measure similar to that obtainable in the t developed world. This will help increase employable graduates who have requisite industry-relevant skills in the areas of advanced data analytics couples with solution-oriented technology entrepreneurial drive.

We are extremely pleased to be able to address this issue through the creation of hands-on learning initiatives including a bootcamp and a Hackathon. These initiatives aim to enable thousands of students to incorporate machine-learning topics into their personal development plans in addition to their school curriculum. We have incentivised this through competitive platforms where the best application of machine learning is rewarded as well as offering the opportunity to attend all-expenses paid bootcamps where world-class data scientists and industry subject matter experts teach, mentor and coach a business-centric, solution-oriented application of data. Some of our bootcamp attendees have also secured direct job and internship opportunities with leading local and international companies.

## 3. DATA AS A TOOL TO CREATE INNOVATIVE SOLUTIONS TO LOCAL PROBLEMS

We believe that AI holds the answers to many local economic and social issues across the African continent provided that robust analytical skills, domain knowledge and local insights can be applied. We have seen start-ups in Sub- Saharan Africa that have leveraged advanced analytics to solve problems in agricultural output, city planning, security, resource allocation and poverty mapping. For example, the Nigerian-based company, Famiscro has used machine learning to create Zenvus, a precision farming sensor that uses multiple data sources to improve crop yield and productivity. This technology will enable farmers to predict the crop yield, select the most suitable soil to plant in, predict environmental risks and identify problem areas.
Additionally, AI provides a knowledge base to expand financial inclusion and unlock the opportunities that exist within Nigeria's low-income population. Financial inclusion has been seen as a main pillar in Nigeria's future economic growth and the National Financial Inclusion Strategy aims to reduce the financial exclusion rate in Nigeria to 20% by 2020.
Furthermore, the Omidyar Network report published in 2015 indicates that leveraging big data can lead to approximately 580 million people being financially included and gaining access to banking services. Reliable data sources are already available in Nigeria due to the widespread use of mobile services (penetration rate 84%) and the increasing rate of Internet usage. Nigeria has the highest Internet penetration rate in Africa and is the 10th highest worldwide. This includes mobile phone usage

patterns, social media interactions and utility payments. All such sources provide a new pool of data that can be used to create new models of non-traditional scoring, identity mapping, geospatial verification and image biometrics authentication that can accelerate financial access, usage and application.




# 3. BUILDING LOCAL AI CAPACITY

Data Science Nigeria is helping to build local AI capacity through talent discovery, enrichment and deployment. We are committed to making Nigerian graduates employable and competitive through a range of hands-on learning experiences supported by industry-leading mentors.

## OUR FRAMEWORK

## CASE STUDIES

### KPMG Internship Programme

We are committed to partnering with industry leaders to create employment and development opportunities for young Nigerians.

In 2017, we partnered with a leading advisory services provider, KPMG, to design a solution-oriented internship programme, the 2017 Data Science Nigeria (DSN) Bootcamp.

As part of the bootcamp, we ran a hackathon where participants were provided with the data of 23,000 retail customers from over 29 cities across Nigeria. KPMG executives shared their knowledge and provided contextual insight to the data project.

The students were tasked with using the data to understand customer preferences, customer satisfaction levels and customer expectations. Specifically, they were asked to identify five to seven distinct customer segments and develop a targeted marketing approach for a new product.

KPMG Nigeria awarded ten internships to the top 10 performers, who were graded by KPMG Nigeria executives. Some of the qualified participants will also be provided with full employment opportunities, subject to other recruitment considerations.

KPMG's executives were extremely pleased with the quality of the interns and believed they demonstrated a good understanding of the business problem and were able to leverage their technical knowledge to address the specific challenges.

They all displayed a superior ability to conceptualize the data provided and were able to tie it to the

problems. This also showed that the participants were able to show the thought process behind their solutions and translate complicated steps into layman's terms.

> "It has been a pleasure partnering with Data Science Nigeria. KPMG is committed to local talent development as one of the ways of improving communities."
>
> Yomi Akinyemi,
> Senior Manager of Data and Analytics, KPMG Nigeria.

The internships will provide the individuals with the opportunity to employ data and analytic skills to solve a variety of real life business-focused problems as well as further developing their skills as they work side-by-side with KPMG data and analytics experts.

## Hult Prize recipient to compete on global platform

We are thrilled to announce that Zainab Ishaq Musa led her team to win the prestigious Hult Prize Regional Challenge, 2018 on the use of machine learning to solve energy challenges.

In addition to this outstanding achievement, Zainab was also the only female in the top ten students to secure an internship with KPMG Nigeria at this year's bootcamp. As a student of the Ahmadu Bello University in Zaria, Zainab attended two previous Data Science Nigeria bootcamps and has enjoyed post-bootcamp mentorship support to refine her skills.

> "I feel great receiving all the congratulatory messages. Thank you Data Science Nigeria for all the inspiration, support, team spirit and love. I wouldn't have achieved this alone. Mr Bayo Adekanmbi has been a pillar of strength to all of us and we will be forever grateful. To our mentors including him, we'll keep following in your footsteps and guidance to achieve more and attain greater heights."
>
> Zainab Musa

The Hult prize was created to challenge young people to solve the world's toughest issues including that of the United Nations Sustainable Development Goals by empowering them to make money, to do good, and to make life better for millions of people through the creation of good for-profit businesses.

As regional winners, Zainab and her team will be heading to the finals in the UK for the US $1,000,000prize. This includes an all-expense paid eight-week summer business accelerator program at the Ashridge Castle, London, where they will receive mentoring, advisory and strategic planning as they create prototypes and set-up to launch their new social business.

The Hult Prize is sponsored through partnerships with the Clinton Global Initiative and the United Nations to create a more prosperous world. The competition is referred to as the Nobel Prize for students, and former US president Bill Clinton believes that it is one of the top five ideas changing the world.

## Retooling students to use data-driven research to solve local problems

We believe that the breakthrough innovations that will help solve local problems in health, agriculture and financial inclusion require robust multidisciplinary research skills backed by AI capabilities.

This is why we are committed to working with Masters and PhD students to translate their

research into high-impact solutions, innovations and start-ups. We believe in the bottom-up approach to local problems where local people are empowered with sufficient knowledge to apply global best practices and methodologies in solving local problems, especially with the use of data.

Data Science Nigeria has identified five core focus areas of research in the immediate term, which its global network of mentors will support, along with specific industry sponsors who will provide the researcher(s) with the required data and platform.

1. Algorithmic Facial Detection of Visually Observable Disease Symptoms: identifying malnutrition and basic health problem triggers in children

2. Automated Road Quality Assessment using an image classification algorithm

3. Governance, Accountability and Public Transparency using natural language processing to understand daily tweets, social commentaries, blogs, news report on social tension, community risk, social concerns and trends

4. Precision Farming and Smallholders' Loan Risk Prediction using farm image data for optimal yield valuation

5. Financial Inclusion - an optimal location algorithm for the determination of the next relevant/under-penetrated places for financial inclusion point of presence.

# 4. REDEFINING WORLD-CLASS LEARNING

We understand that in order to advance AI practice and help Nigeria become the talent hub for international data science/advanced analytics and big data projects we need to provide learning opportunities in line with global standards.

This is why our learning opportunities including online classes and bootcamps are delivered by industry leaders, leading local practitioners and foreign-based experts, both in- person and remotely.

Two bootcamps have been held by Data Science Nigeria and they have built a strong learning community. After the pre-qualification exams on Microsoft/Edx Data Science MOOC series and DataCamp as well as a public Kaggle competition, 150 participants qualified for the bootcamp.

Kaggle is a platform for predictive modelling and analytics competitions through which data scientists compete to produce the best models for predicting and describing the datasets uploaded by companies and users. This platform has allowed our Nigerian talent to compete for a place at the bootcamp and to develop working skills and methodologies similar to what is obtainable elsewhere in the world.

One of the key benefits of a Kaggle competition is that it provides rich discussion sessions that are run as actual master classes by participants with shared learning codes and approaches by different members of the community. It is this shared collective intelligence that makes Kaggle such a great learning platform for every emerging data scientist.

The 2017 Data Science Nigeria Bootcamp was a great success with participants attending from all over Nigeria (with 65% of students from outside Lagos). More than 10,000 students showed interest in the pre-qualification exams and more than half of these attempted at least one quiz in the learning series. The purpose of the pre-qualification is to optimize the short duration of the bootcamp by ensuring a certain level of competency from students and allowing instructors to cover a broad range of requisite topics with hands-on applications.

The bootcamp is a practitioner-led model to ensure the practicality of the learning. Seven PhD-level data scientists acted as on-site tutors and dial-in instructors and there were three simultaneous ongoing Hackathons.

"The pre-qualification exercise for the Data Science Nigeria boot camp was quite challenging but the whole learning experience was a major leap for me in developing expertise in the field of data science,"

- Miss Adeola Balogun.

The 2017 Data Science Nigeria bootcamp featured a robust curriculum that covered a wide range of data science topics in just four days. The topics covered included the fundamentals of data science, an introduction to machine learning algorithms, advanced machine learning techniques, machine learning with Microsoft Azure, and an introduction to big data engineering.

"The best part of the experience was applying what we learned in solving social and business problems relating to Nigerian context. This has fully armed me with the necessary skills required to make sense out of data,"

- Jonathan Obise

We are grateful to our partners: Microsoft, 4Afrika, Interswitch, Diamond Bank, OneFi, L5Lab, Keoun.ng, KPMG, ProShare Nigeria and the Nigerian Bureau of Statistics, as well as all of our volunteers. Thank you! Together we are putting Nigeria on the world map of big data.

"I came into the boot camp with no prior knowledge in machine learning or big data analysis but after the boot camp I was able to perform predictive analysis. I also learned how to effectively use these tools and technologies in solving real-life data problems. This is critical for me in building a successful career in the field of data science,

- Sadeeq Akintola.

Preparations for the 2018 bootcamp have commenced. In the spirit of driving national inclusion, an inter-campus machine learning competition is being organised to further build the talent pool and increase nationwide participation. As at June 2018, over 80 universities and polytechnic across the country are participating in the intensive 60-day pre-qualification courses.

The 2018 event has also been incentivised with a cash award of 1,000,000 Naira in prize money to be allocated to the top three winners. At least 20% of the seats (compared to the previous 7% allocation) will be reserved for females. We believe that after this competition more Nigerian students will be interested in learning the R or Python programming languages and hands-on machine learning principles as a basis for getting involved in the opportunities that AI provides.

# CONTENT DEVELOPMENT

We believe that providing free access to a range of educational material on AI is critical to harnessing the benefits of data science in our local businesses and communities. Our content are created to simplify access to learning based on the fact that many of our students are unable to afford the required books.

e-book made available as FREE Download

At the same time, a core focus is to develop tailored material in a way that appeals to many non-information technology professionals. The materials we provide are for those who want to understand the basic concepts of AI and to use it as a starting point for basic skill acquisition and how AI can be applied in other industry domains.

We have created a free e-book entitled Artificial Intelligence Simplified with 101 use cases and contributions from AI users and experts, including the world-renowned pioneers Professor Yoshua Bengio and Professor Thomas G. Dietterich.

In addition, we have created a 90-day Introduction to Machine Learning and Deep Learning as a way to enrich the existing school curriculum and provide interested students with a compact work guide. The guide is available for free download on the Data Science Nigeria website at www.datasciencenigeria.org

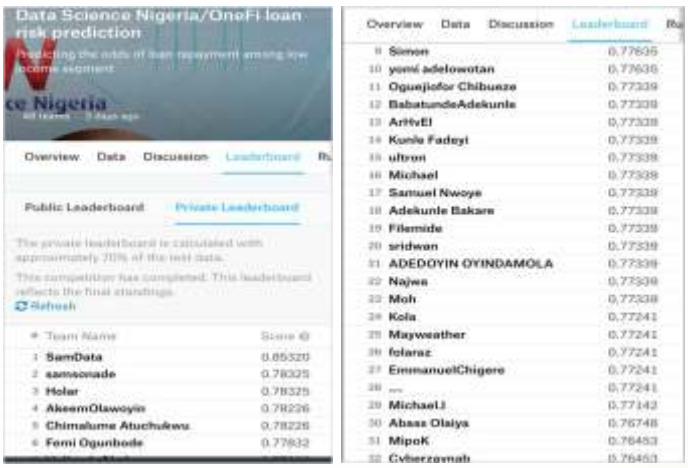
# KAGGLE COMPETITIONS ADDRESS LOCAL BUSINESS CHALLENGES

Data Science Nigeria organises regular Kaggle competitions as a platform to increase capacity building through competitive engagements. These events specifically help to sustain the momentum of the bootcamps and to strengthen community engagement.

The project –based competitions are designed to apply data science principles to solve specific business problems. One of the competitions held in January 2018 focused on the use of data to address one of the most important problems in the telecommunication industry – churn. This end-to-end learning opportunity provided participants with the opportunity to learn, engage, build assumptions, test hypotheses, validate their models, develop algorithms, and apply relevant analytical principles.

The gamified nature of the Kaggle competition also leads to continuous improvement. Every submission is publicly scored with a ranking, empowering participants to seek out new approaches on a consistent basis. This crowdsourcing approach is built on the fact that there are countless strategies that can be applied to any predictive modelling task and when a student is exposed to these possibilities, they learn much more.

The Kaggle events complement the daily expert conversations that are regularly shared via Whatsapp groups, Twitter, LinkedIn and Facebook. The expert conversation is a platform for peer-to-peer learning, best practice sharing, job posting, trends and expert thoughts.



# 5.

# DRIVING NATIONAL DISCOURSE ON DATA FOR SOCIO-ECONOMIC DEVELOPMENT

Data Science Nigeria is advancing the conversation on how the application of AI can help nations and especially developing economies solve fundamental socio-economic challenges, particularly the MDGs.

We do this through establishing a presence on national platforms aimed at driving the application of data in national development. At the 2017 eNigeria Information Technology Conference, Mr. Olubayo Adekanmbi, the Convener of Data Science Nigeria, discussed the importance of data security, customer privacy, and the anonymization of all practical use of aggregated data for social good. Held in Abuja, Nigeria from 7 to 9 November, 2017, the conference was organised by the National Information Technology Development Agency (NITDA) and it is the premier ICT conference in the country.

In his speech, Mr Adekanmbi explained that nations, and especially developing economies can apply big data to solve fundamental socio-economic challenges, especially as a means to achieve the MDGs.

"Big data can be applied to tremendous effects. For instance, it has been linked to multiple uses in infectious disease tracking, weather management, agricultural yield optimisation, precision policing, human migration, governance, urban planning, emergency response, intelligent transport network and many others", said Mr. Adekanmbi.

The conference was declared open by President Muhammadu Buhari, who stated that a renewed focus on information technology has yielded positive effects on the Nigerian economy, citing the examples of the Biometric Verification Number (BVN).

# 6.

# INDUSTRY ENGAGEMENT ON DATA-DRIVEN PRODUCTIVITY FOR INNOVATION AND SUSTAINABLE BUSINESS GROWTH

## 1ST BIG DATA SUMMIT

In order to advance our goal of using data science to assist in local business growth and acceleration, it is important to bring leading minds in the industry, developers and academia together.

Data Science Nigeria was proud to host the first-of-its-kind gathering of experts and industry leaders in the emerging big data ecosystem at the 1st Big Data Economy Summit held in October 2017 in Lagos.
The summit showcased and discussed relevant case studies about how the application of data science can drive socio-economic development in emerging markets. Dr Yemi Kale, Statistician General of the Federation, was the keynote speaker for the event and reinforced the impact that data science has on decision-making. "We're now in an information-driven economy where data is the main currency and therefore policy-makers must respect data and stop every act of 'guesstimating," he said.

Uzoma Dozie, CEO of Diamond Bank, also explored the question, "What does a CEO want from Data Science?", as a way to capture the daily business imperatives of applying data science. US-based Prof. Ndubuisi Ekekwe, Chairman of Famiscro Group and inventor of the Zenvus Precision Intelligent Farming products showcased a practical case study demonstrating how Zenvus precision farming is using big data to increase agricultural productivity.
The various insights provided across different industries were well received. Olumide Olayinka, Partner and Head of Analytics Practice at KPMG, argued that "Machine learning and artificial intelligence are not taking away our jobs. It's the rise of humans to create better jobs."

With a vision of seeing Nigeria become the hub for data experts and machine learning in the next 10 years, the summit provided a lot of valuable discussions and key insights to take away.

# KNOWLEDGE MEET-UP WITH LEADING GLOBAL EXPERTS

Session with Big Data Evangelist Professor Raj Krishna

We also work to create platforms for high caliber speakers and industry experts to discuss and inspire real world application of big data and AI for organizations.

In December 2017, we were proud to host Professor Raj Krishna, a Microsoft Big Data Evangelist, and an adjunct Professor at the Illinois Institute of Technology in Chicago, USA who spoke at an interactive session on Data Science and AI. Professor Krishna spoke on the latest trends in AI with a specific focus on how businesses can use Natural Language Processing (NLP) technology as a marketing edge. He also explained how NLP is being used to filter out spam emails and is helping to solve the problem of unwanted emails.

Professor Krishna also introduced the audience to ways in which they can build a chatbot with the Microsoft Azure bot service as a way to speed up development by providing an integrated environment that is purpose-built for service delivery.

In April 2018, Dr Uyi Stewart, the Director of Data and Analytics at the Bill and Melinda Gates Foundation, was a guest speaker at a Data Science Nigeria learning session, where he spoke on the application of Design Thinking in Data Science/Artificial Intelligence. He demonstrated the process of creative problem solving as the starting point of any AI project, and how empathy and experimentation form the critical path to arriving at innovative solutions.

# DATA SCIENCE NIGERIA SHOWCASED AT THE 7TH GERMAN-NIGERIA BUSINESS FORUM

Global perspectives and participation are key to advancing the socio-economic development of Nigeria.

The 7th German-Nigerian Business Forum, held on 21 June 2018 in Lagos, allowed business leaders and policymakers from both countries to exchange information and establish business relationships.
The theme was "Leveraging partnerships for economic growth." The attendees were briefed about Data Science Nigeria's inclusive end-to-end AI ecosystem with clear talent pipeline, developmental bootcamps, structured mentoring, hackathons, innovation hub and job placement.

Mr Bayo Adekanmbi, the Convener for Data Science Nigeria, discussed the Nigeria Data Science evolutionary space and opportunities for the German business community.

In attendance were Dr. Okechukwu Enelamah, Nigeria's Minister of Trade and Investment, Mr Bernhard Schlagheck, the German Ambassador to Nigeria, and over 300 business representatives from the private and public sectors.

The two-day event was organised by the Delegation of German Industry and Commerce in Nigeria (DGIC) in collaboration with the Nigerian-German Business Association (NGBA) and Afrika-Verein.

# 7. GLOBAL AND LOCAL VALIDATION

GLOBAL MENTORSHIP PROGRAMME

We believe that mentorship and experiential learning can fast-track the application of learning in high-intensity fields such as data science, machine learning, artificial intelligence, big data and advanced analytics.

We developed the Mentor African Data Scientists mentoring program to coach, guide and inspire Nigerian and African data scientists by experienced professional and academics.

The inaugural programme kicked off in May 2018 with 40 mentors across 4 continents. The mentors are leading experts in various industries who have volunteered to coach, guide and mentor young aspiring data scientists. The mentors spend at least 60 minutes in a 30-day period with the aspiring scientists via regular emails, tele-chats and via a tracked accountability platform to ensure that both mentees and mentors are maximizing the opportunity.

This initiative complements our local bootcamps and regular Kaggle competitions, and it will go a long way in helping us to achieve our goal of training 100,000 data experts in 10 years.

The feedback received from the participants has been most encouraging, and we are already at phase 2 of building an additional list of mentors from the global data science community.

## MENTOR AFRICAN DATA SCIENCE PROGRAMME PROMOTED IN CAPE TOWN

Data Science Nigeria's Convener - Mr Bayo Adekanmbi, on a recent visit to Cape Town to promote the Mentor African Data Scientists agenda with young Nigerians in the diaspora

# 8.

# STRENGTHENING THE PAN-AFRICAN NETWORK FOR IMPACT AND LEARNING

Sharing best practices via Pan-African initiatives are key to advancing data science impact on the continent and capitalizing on its benefits to further the Millenium Development Goals.

## VISIT TO UN GLOBAL PULSE LAB, UGANDA

Data Science Nigeria initiated a formal visit to the United Nations Global Pulse Lab based in Kampala Uganda, with a view to accessing best practice in Africa-centric data research and the highly respected Data Science Africa Summer School.

The visit provided Data Science Nigeria with an opportunity to enrich its knowledge of possibilities in the area of addressing MDG through the use of data science applications, especially in the area of financial and digital inclusion, health, and agriculture. The 3rd Data Science Nigeria Bootcamp and Hackathon scheduled for October 2018 in Lagos, Nigeria will incorporate the UN Global Pulse Lab's work on mobile money social network algorithms for financial inclusion. The visit also provided the perfect opportunity to formally invite Dr John Quinn, an Artificial Intelligence Advisor at the Kampala Pulse Lab and an Honorary Associate Professor at Makerere University, to the bootcamp.

## PARTNERSHIP FOR FINANCIAL INCLUSION DATA APPLICATION: i2i LAB , CAPE TOWN .

In recognition of our role in promoting the use of data to solve local problems, particularly in relation to financial inclusion, we are pleased to announce that Mr. Bayo Adekanmbi , the Convener for Data Science Nigeria, was appointed to the advisory board of insight2impact (i2i).

i2i is a global resource centre that seeks to improve financial inclusion through the smarter use of data and evidence-based, data-driven policies and client-centric products that are both inclusive and impactful.

Mr Adekanmbi joins other experts to help the firm

navigate and respond to the dynamic external financial inclusion environment. Not only is i2i bridging the data gap to sustainably connect decision-makers with the data they need, it is also the organizer of the highly successful DataHack4FI, an innovation competition that promotes data-driven decision-making for improved financial service provision to low-income individuals. This works by bringing together data enthusiasts and financial service providers to crowdsource data-driven solutions to real-world challenges.

The competition has previously been held in Rwanda, Tanzania, Zambia, Ghana, Uganda, Mozambique, Senegal and Kenya.

## DATA SCIENCE NIGERIA MODEL RECOGNISED AS A BEST MODEL FOR TALENT DEVELOPMENT AT CDAO CONFERENCE, JOHANNESBURG.

Data Science Nigeria's Convener, Bayo Adekanmbi, at the Chief Data & Analytics Conference in Johannesburg, South Africa, sharing best practices in data science talent development. He spoke on 'the 4Ps of Data: Possibilities, Process, Platform and importantly, People'.

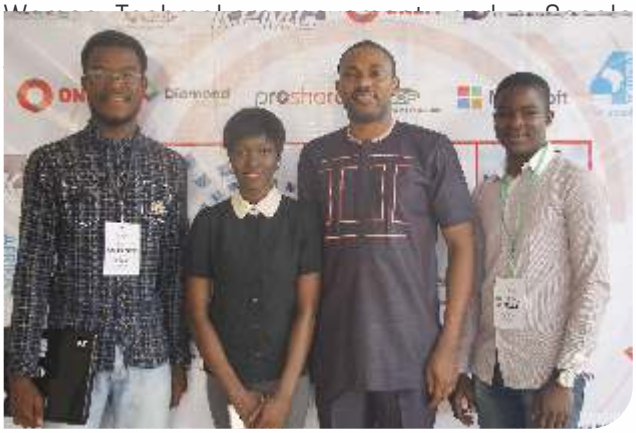
# 9. PROMOTING GENDER EQUALITY

Data Science Nigeria is a strong advocate of inclusion, and particularly the inclusion of women, people with physically disabilities, and participants from rural low-income communities. To ensure nationwide equality in participation at our events, funds are allocated to support students who attend bootcamps from far rural areas with special accommodation arrangement provided.

## WOMEN LEADING THE WAY IN TECH

There is a concerted effort to promote female participation in Data Science Nigeria. We are pleased to announce that the 2017 bootcamp Hackathon winner, Miss Adeola Balogun is a 400-level Computer Science undergraduate of the Obafemi Awolowo University, Ile-Ife, Nigeria. Miss Balogun led the leaderboard ahead of the other 149 participants to claim her title.

Adeola mentioned that she began programming in Python during her 200-level classes and she is very passionate about encouraging women interested in programming in Python, while complementing her academic studies with an internship with the Terragon Group. Adeola is also an advocate for the



Beyond bootcamp participation, ladies are also encouraged to translate their knowledge into practical solutions. We celebrate the efforts of Mrs Opeoluwa Iwashokun, who developed Palm (Biometric) recognition on Android phones using a deep learning approach. Biometrics is a technology that identifies and authenticates individuals based on physical characteristics such as fingerprint identification, iris and retina identification, facial recognition, gait or voice recognition. In this case, Opeoluwa used the palms of the hands. The app was designed using a MobileNet library available on TensorFlow Machine Learning (a deep learning approach) and deployed using an Android software development kit.

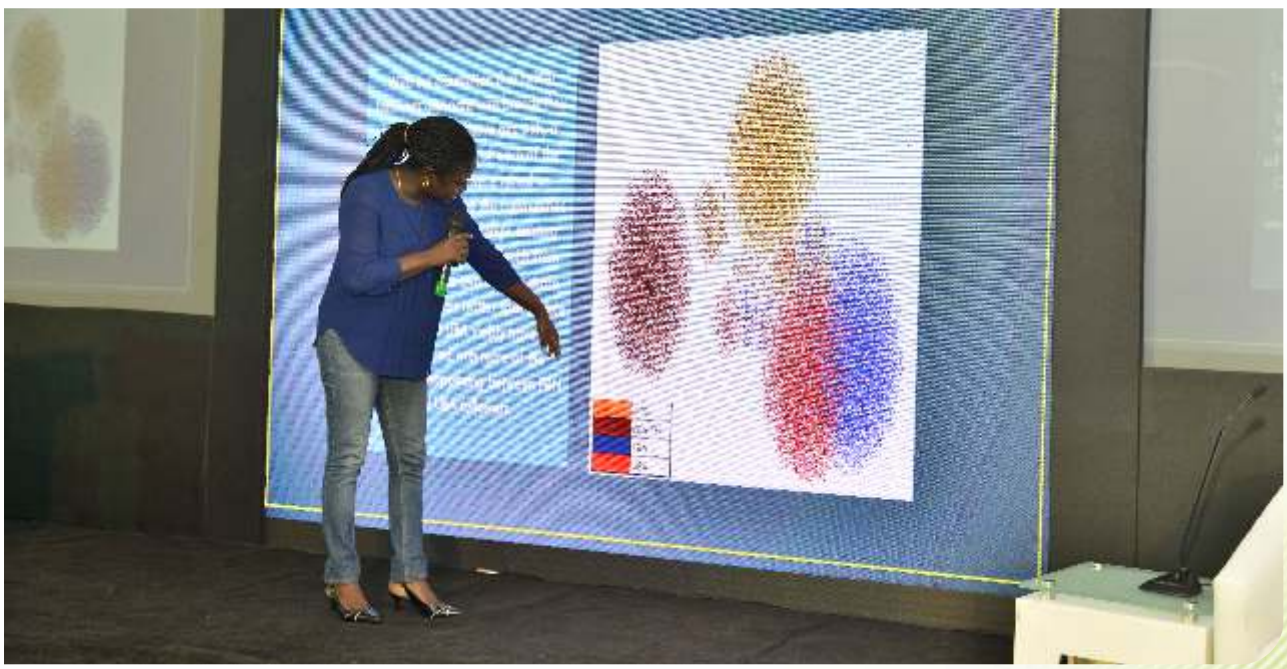
We are deeply encouraged to see women advancing in the tech space.

## PROUD SPONSOR OF WOMEN IN MACHINE LEARNING

In pursuance of our commitment to gender balance, Data Science Nigeria is committed to supporting and sponsoring female-oriented training programmes that encourage the use of advanced analytics. Data Science Nigeria was one of the sponsors of the Women in Machine Learning Summit held at Olabisi Onabanjo University, Ago-Iwoye, Ogun State on 20

June 2018.

We strongly believe that women are great programmers and statisticians who can bring a unique blend of intuition, depth and passion to artificial intelligence practice.



# 10. BUILDING THE FUTURE TODAY

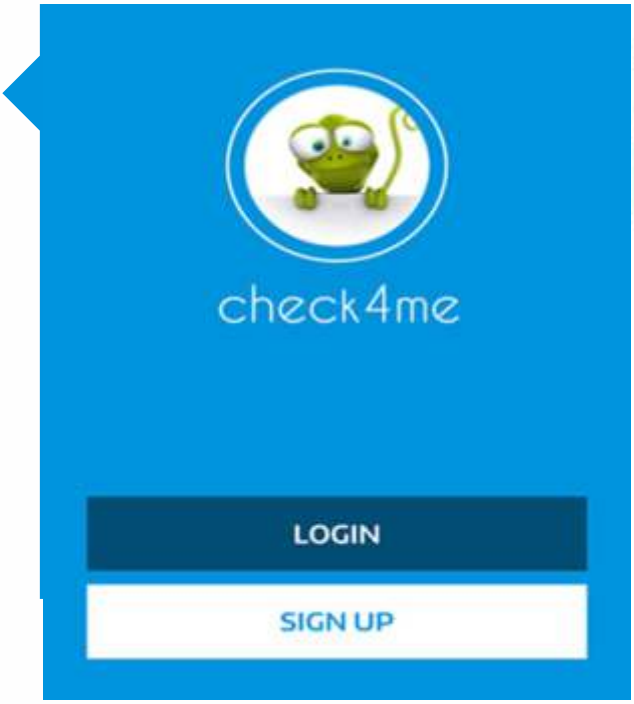
As part of the effort to drive AI-powered local innovation, Data Science Nigeria kicked off a PhD-oriented initiative to stimulate and support high-impact PhD research in areas that solve social and business problems.

## UPSCALING PhD RESEARCH ON FINANCIAL INCLUSION AND HEALTH

The PhD4Innovation Hub is built on a tripartite model that brings together robust academic research, industry research and development support, and incubation support for ideas development and techpreneurship. Some of the key benefits of the Hub include:

- Commitment to research (2-4 years) focused on solving innovative problems that can grow to become social enterprises or innovation start-ups
- Alignment with the Millennial Development Goals and imperatives for addressing African-centric social issues (financial inclusion, medical automation, education etc.).
- Continuous engagement with the industry to understand gaps, trends and access data/platform for seamless execution.

Data Science Nigeria provides expert support from its global pool of mentors to willing students. Students can also make use of the tools that Data Science Nigeria has acquired for specialised data collection including sound, images, biometrics, etc.




# 11.
# LOCAL SOLUTIONS FOR DATA COLLECTION AND APPLICATION

Data Science Nigeria believes that its ability to lead the data revolution in Nigeria will require gathering real-time data across the country. This data will support important areas that require in-depth research such as financial inclusion, agriculture, governance, health and the economy.

We are now at the pilot stage of testing two applications for real-time local data collection. These applications focus on the use of publicly available data for social development, especially daily data that provide insights in the areas of well-being and quality of life at the micro-geography level.

For example, Check4Me is a crowdsourced research community of local residents who receive specific tasks such as checking daily food prices, changes in economic activities, public project daily implementation status, reporting local events etc. Data is reported back real-time via picture, audio and video evidence through a smartphone.

# 12.

# BUILDING ADVANCED ANALYTICS EXPERTISE TO ADDRESS FINANCIAL INCLUSION

As part of its drive for incremental knowledge building that can support AI applications, Data Science Nigeria is organizing Deep Learning Nigeria 2018, which is the first of its kind, all-expense paid residential bootcamp and hackathon focussed on Financial Inclusion.

## DEEP LEARNING NIGERIA 2018

This bootcamp will be an advanced session that applies deep learning concepts in Nigerian-centric, solution -oriented use cases - computer vision, Natural Language Processing and Speech algorithm. It will be anchored on thematic problem-solving on Financial Inclusion via knowledge-oriented applications in areas such as speech authentication, biometric verification, use of alternative data for credit risk scoring and innovative use of farmland images for farmers' risk valuation.

The session is designed for the top intermediate to advanced machine learning practitioners within the academic community and the data science industry in Nigeria, and it will focus broadly on using data to develop breakthrough models and algorithms to increase financial inclusion in the country.

The bootcamp will feature world-class hands-on learning and project-oriented tasks based on real world problems using data from leading local and international organisations.

The bootcamp and hackathon are scheduled to be held along with the Machine Learning bootcamp in October 2018. The pre-qualification study has commenced across the country to select the best 75 participants. They will enjoy the benefits of learning from leading experts who will fly to Nigeria to teach and mentor them.

# 13. INVESTING IN THE FUTURE

"Catch them young" is a mantra that Data Science Nigeria lives by. This philosophy drove us to mobilize trainers to facilitate free classes at the Data Science Bootcamp organized by Wifi Combat in April 2018 for primary and secondary schools students.

## AI SUMMER SCHOOL FOR TEENAGERS

Data Science Nigeria has put together a unique curriculum to introduce Grade 7-9 pupils to the basics of AI. The course combines the Australian and China Junior School AI modules merged with Basic Machine Learning and an introduction to the Python programming language.

The curriculum is informed by the work of Professor Michael Milford, a Professor of Robotics in Australia, author of The Complete Guide to Artificial Intelligence for Kids. It is also enriched with the latest China Artificial Intelligence for Secondary Schools content.

This programme will also provide a year's follow-up learning support through regular assignments, expert engagement, and face-to-face meet-ups during holidays.

# 14.

# 1ST ARTIFICIAL INTELLIGENCE HUB : NEW HORIZON IN CAPACITY BUILDING

Data Science Nigeria has unveiled the first phase of its Data Science Community Centre and Artificial Intelligence Hub for cross-industry and academic research at the University of Lagos.

The Hub was officially launched on Friday, 8 June, 2018 with the Vice Chancellor, Professor Oluwatoyin Temitayo Ogundipe, and Dr. Uyi Stewart, Director, Global Development Strategy, Data & Analytics for the Bill and Melinda Gates Foundation, in attendance.
Phase 1 of the hub demonstrates Data Science Nigeria's commitment to accelerated applications of AI to solve social and business problems through a strategic partnership between the academic community, industry, and local and international technology hubs.

The Hub will be the community centre for data science enthusiasts and experts to learn, share ideas, and participate in local and international projects. We also plan to use the Hub for face-to-face master classes, industry meet-ups, and dial-in conferences with its mentors from around the globe.
The Hub features modern data collection tools including biometric readers, AWS AI DeepLens cameras, Google Clips, Intel Movidius neural sticks, GPS tracking devices, car real-time travel camera, Bionic Nature Observing Device, many Internet-of-Things suites, and more. Data Science Nigeria is committed to supporting Nigerian students and encouraging them to turn their academic research into innovative start-ups or social enterprises aligned with the Millennial Developmental Goals.
The event had strong representation from the University of Lagos including Professor Wellington A. Oyibo, Director of Innovation and Research, Professor Sunday Abayomi Adebisi, Director of the Centre of Entrepreneurship, Dr. Victor Odumuyiwa, Acting Director, Centre of Information Technology, and Dr O.S. Asaolu, Head of the Department of Systems Engineering.

Also in attendance were industry leaders, directors, and senior executives from Chevron, Microsoft, KPMG, MTN, FCMB, Diamond Bank, Fidelity Bank, Interswitch, Procter and Gamble, Honeywell Group/Itanna, SAS, ProShare Nigeria, Uhuru Capital, Eureka-AI, CcHub, L5Lab, BlueChip Technologies, FarmCrowdy, Trium Investment Group, Mind The Gap, Johnson & Wilner LLP practice of Technology Law, SlateCube, Techpoint and TechCabal.

## SOME OF THE AI HUB LIBRARY COLLECTIONS

## SOME OF THE AI HUB TOOLS

Latest Google Clip AI Cameras

AWS AI DeepLens Cameras

Intel Movidius Neural Sticks for advanced facial and object recognition.

GSM/GPRS/GPS Tracking Device

Bionic Nature Observing Device With Recording

# 15.
# GOING INTO THE FUTURE: AI FOR NIGERIA'S DEVELOPMENT

### TRANSLATING REAL-TIME DATA INTO DEVELOPMENTAL INSIGHTS

With two data collection apps in development, Data Science Nigeria will be well equipped to tackle new frontiers in insight generation that can support various developmental initiatives in critical areas of social welfare and business growth.

## SUSTAINABLE LEARNING PLATFORM

Data Science Nigeria is building a network of Campus Ambassadors to widen the artificial intelligence community. The aim is to provide updated knowledge content to students across the country and to deepen their capacity to be on the leading edge of learning, like students in the developed world.

## ARTIFICIAL INTELLIGENCE FOR SOCIAL GOOD AND ACCOUNTABLE GOVERNANCE

Data Science Nigeria will focus on use of advanced analytics to support social good especially in the areas of identifying diseases patterns, community risk indicators based on weather and satellite data, and promoting the use of alternative data for credit scoring in a drive to include the low-income population. We will also explore initiatives on how public data can be used for effective governance, transparency and policy tracking.

## PROMOTING NIGERIAN AI START-UPS

We strongly believe that with a focus on solution-oriented application of AI, we will see early AI start-ups from Nigeria with compelling solutions and business models that are scalable to serve the peculiarities of the country and other emerging markets.

## DEEPENING HIGH-IMPACT AI RESEARCH

The need to drive theoretical contributions to the global knowledge repository of AI is a major focus of the group as we build a learning community of researchers in Nigeria and provide a network to global experts in different parts of the world. We have set a target of having a minimum of 20 papers for international submission by 2022 at leading global conferences, such as the International Conference on Machine Learning , Neural Information Processing Systems , IEEE Conference on Computer Vision and Pattern Recognition, etc.

## BUILDING A BETTER SOCIETY WITH AI

Data Science Nigeria understands how upskilling Nigerians is key to our country's future national competitiveness. We understand that AI is going to be critical for building our national comparative advantage.

As indicated by the McKinsey Global Institute, AI's contribution to the transformation of society is happening 10X faster and at 300X the scale (or at roughly 3,000X the impact of) the Industrial Revolution. Artificial intelligence must therefore become a strategic asset, and we much produce more disruptive and high-impact multidisciplinary research that can support meaningful national development.

# 16.

# CONSOLIDATED STATEMENT OF FINANCIAL ACTIVITIES INCLUDING INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED JULY 2018

# Data Scientists Network Foundation

## Statement of Income and Expenditure (July 2017 - June 2018)

| Inflows | FY 2017/18 NGN | FY 2017/18 USD |
|---|---|---|
| Grants and Project Finances | 20,695,875 | 57,171 |
| Other Income | | |
| **Total Incoming resources** | **20,695,875** | **57,171** |
| | | |
| **Expenditure** | | |
| Training Cost | 815,000.00 | 2,251.38 |
| Travelling Expenses | 1,173,219.00 | 3,240.94 |
| Infographic & Illustration | 395,000.00 | 1,091.16 |
| IT Related Expenses | 1,021,700.00 | 2,822.38 |
| Design & External Consultancy | 646,400.00 | 1,785.64 |
| Rent | 1,392,100.00 | 3,845.58 |
| Publications | 200,000.00 | 552.49 |
| Adverts and Promotions | 1,714,292.50 | 4,735.61 |
| Event & Workshops | 7,612,985.00 | 21,030.35 |
| Expansion Project Exp | 3,623,991.00 | 10,011.02 |
| Competitions / Exhibitions | 80,000.00 | 220.99 |
| Tools and Library | 1,406,088.52 | 3,884.22 |
| General and Admin. Expenses | 44,200.00 | 122.10 |
| **Total Expenditure** | **20,124,976.02** | **55,593.86** |
| | | |
| **Net Incoming resources** | **570,898.98** | **1,577.07** |
| | | |
| **Opening Balance** | - | - |
| **2017/18 Project Funds (currently held)** | **570,898.98** | **1,577.07** |
| | | |
| **Net Position** | **570,898.98** | **1,577.07** |

# 17. DONORS AND PARTNERS

# CASH DONORS

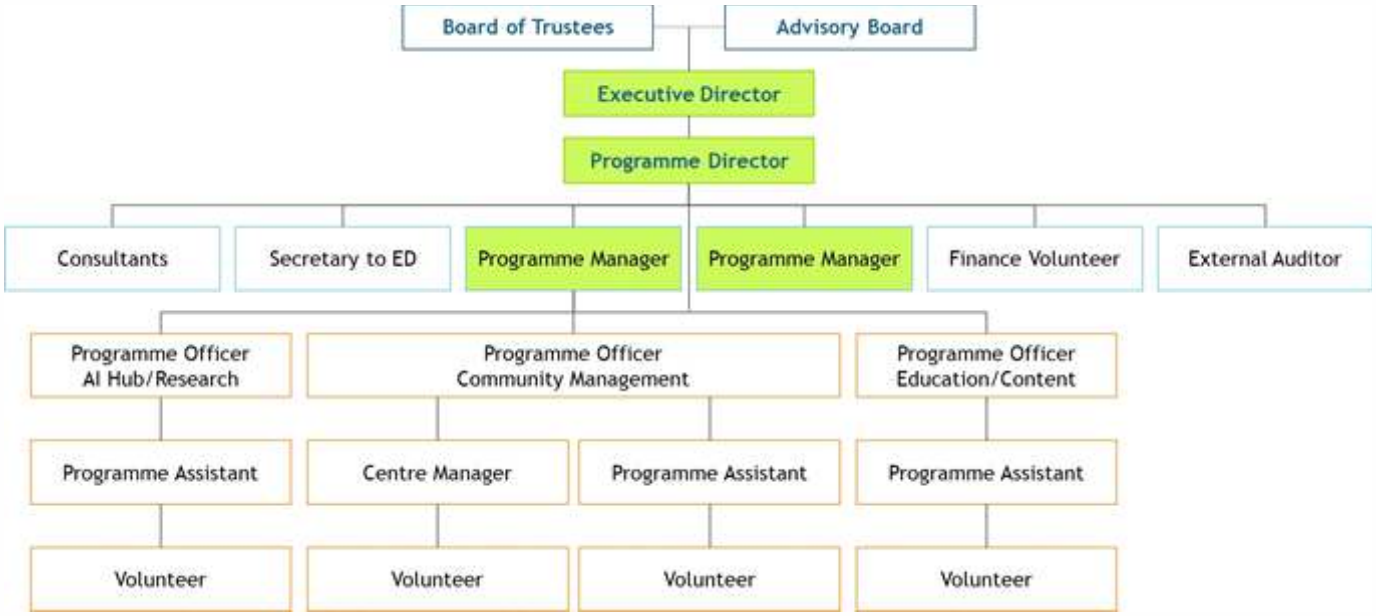
| | Naira | Dollar |
|---|---|---|
| Microsoft | 2,045,875 | 5,651.6 |
| Interswitch | 2,000,000 | 5,524.9 |
| Diamond Bank | 1,000,000 | 2,762.4 |
| OneFi | 1,000,000 | 2,762.4 |
| L5Lab | 500,000 | 1,381.2 |
| Keoun | 150,000 | 414.4 |
| Mr Bayo and Mrs Toyin Adekanmbi | 14,000,000 | 38,674.0 |
| **Total Income** | **20,695,875** | **57,170.9** |

# IN KIND DONORS

| | |
|---|---|
| DataCamp.Org USA | Learning Content |
| Microsoft Edx | Learning Content |
| KPMG | Knowledge and Internship |
| ProShare & WebTV | Knowledge, Content and Media support |
| CFATechng | Media |
| Nigerian Bureau of Statistics | Data |
| OneFi | Knowledge and Internship |
| Machine Intelligence Institute of Africa (MIIA) | Knowledge, Mentoring and Content |
| Abelinis | Logistics Support |
| Mr Iyinoluwa Aboyeji | Advisory Support |
| Python Nigeria | Knowledge |
| BlueChip Technologies | Mentorship and Sponsorship for 2018/2019 |
| Mr Joseph Agunbiade | Website support |
| Mr Kelvin Oyanna | Website support |
| Prof Ndubuisi Ekekwe | Knowledge and Mentorship |
| Dr Victor Odumuyiwa | Knowledge and Mentorship |
| Dr Olumuyiwa Asaolu | Knowledge and Mentorship |
| Technext.ng | Editorial Content |
| 7even Interactive | Creative Design |
| Karyxma Creatives | Creative Design |
| Keskese | Logistics Support |
| Hagof Consulting | Knowledge |
| Xlytics Innovations | Knowledge |
| Octave Analytics | Knowledge and Logistics Support |
| O'Lekan Babatunde/BrandCrunch | Media and Editorial Content |
| Microsoft, 4Afrika | Knowledge Content |
| Mr Gideon Adedokun | Financial Reporting |
| University of Lagos, Lagos, Nigeria | Hosting of the Artificial Intelligence Hub |

# 18.

# DATA SCIENCE NIGERIA LEADERSHIP


Board of Trustees
Advisory Board
Executive Director
Programme Director
Consultants
Secretary to ED
Programme Manager
Programme Manager
Finance Volunteer
External Auditor
Programme Officer
AI Hub/Research
Programme Officer
Community Management
Programme Officer
Education/Content
Programme Assistant
Centre Manager
Programme Assistant
Programme Assistant
Volunteer
Volunteer
Volunteer
Volunteer

# ADVISORY BOARD

**Dr Jacques Ludik**
Founder of MIIA (President) & CEO, Cortex Logic
Cape Town, South Africa

**Dr. Olayinka David-West**
Director and Fellow, Information System,
Lagos Business School, Lagos, Nigeria

**Frederick Lester**
Chief Data Strategist / Analytics Executive
Rutgers University Big Data Advisory Board Member, USA

**Prof. Sahalu Junaid**
Director Institute of Computing and ICT/Head of Department
Computer Science, Ahmadu Bello University Zaria

**Dr. Victor Odumuyiwa**
Acting Director, Centre for Information Technology
University of Lagos, Lagos, Nigeria

**Ngozi Dozie**
Director, OneFi
Lagos, Nigeria

# PROGRAMME OFFICE

Kayode Iledipo
Director, Data Science Nigeria

Temitope Baye
Secretary, Data Science Nigeria

Abel Ofinni,
Programme Manager

# PROGRAMME ASSISTANTS

Fasipe, Timilehin M.
Enikuomehin Jedidiah

## EVENT VOLUNTEERS

Kelvin Oyanna
Ovie Ekakitie
David Alozie
Ifeanyi Sebastian Obeta
James Oyanna
Emmanuel Okpalaeke
Helen D. Johnson
Jacob Atitebi
Oluyemi Itulola
Opetunde Adepoju
Olusegun Ajibade
Rotimi Omotayo-Benson
Busayo Coker
Omole Michael A.

## CONTENT VOLUNTEERS

Damilare Olaniyan
Abiona Kamoldeen
Olalekan Olapeju
Helen Johnson
Opeoluwa Iwashokun
Sadeeq Akintola
Zainab Ishaq Musa
Ayodele Oluleye
Koye Sodipo

## KNOWLEDGE VOLUNTEERS

Uzoma Dozie, CEO, Diamond Bank
Dr Jacques Ludik
Prof Olanrewaju Shittu, UI, (Statistics)
Dr Uyi Stewart, USA
Olumide Olayinka, Partner KPMG
Emeka Okoye, CEO, Cymantiks
Wale Olokodana, Director, Microsoft
James Agada, CEO, CWG
Chika Nwobi, CEO, L5Lab
Babafemi Ogungbamila, CIO, Interswitch
Blessing Oladeji, Octave Analytics
Chidiebele Ifediora, IBM
Nadayar Enegesi, Andela
Samuel Odeloye. Lara.ng
Adedamola Ibironke, MTN
Ngozi Dozie, Director, OneFi
Dele Tejuoso, Founder, Wifi Combat
Steve Baba-Eko, CEO X3M
Bernard Ewah, CCO Keoun.ng
Mr Foh Patrick, Maxdotng
Dr Tunji Adegbesan, Gidimo
Dr Raphael Yemitan, PwC
Dr Sulaimon Afolabi, South Africa
Dr (Mrs) Sakinat Folorunso, OOU, Nigeria
Mr Corne Nagel
Dr. Wale Akinfaderin, USA
Professor Raj Krishnan, Microsoft
Dr Johnson Iyilade, Canada
Dr Ponmile Oloyede USA
Ladi Aduni, KPMG Nigeria
Yomi Akinyemi , KPMG Nigeria
Usoro Usoro, MTN Nigeria
Koye Sodipo, Bain and Co, Nigeria
Azeez Oluwafemi Adegoke, CMU Rwanda
Rosemary Temitope Fadare

# SOME OF OUR MENTORS

| Mentors | Position | Country |
|---|---|---|
| Dr. Sulaimon Afolabi | Lead Data Scientist at Argility, Johannesburg, South Africa | South Africa |
| Dr. Arinze Akutekwe | Data Scientist at Fujitsu, Manchester, UK | United Kingdom |
| Dr. Samuel Durugo | Lead Data Scientist, Microgaming, United Kingdom | United Kingdom |
| Dr. Johnson Iyilade | Data Science and Analytics Consultant, Glomacs IT Solutions, Toronto, Canada | Canada |
| Damilola Ojo | Director of Analytics , Delta Partners Dubai, UAE. | United Arab Emirates |
| Dr. Wale Akinfaderin | Graduate Researcher , Florida State University and the National High Magnetic Field Laboratory, USA. | USA |
| Kingsley Okoye | PhD. Software Engineering and CEO Kingzonatech Digital Solutions | United Kingdom |
| Rishabh Upadhyay | Data Scientist at Darkmatter | United Arab Emirates |
| Prof. Diane Igoche | Assistant Professor at Robert Morris University, Pittsburgh, USA | USA |
| Onyeka Ojukwu | Software Engineer at Coniah Systems Support Limited | |
| Corne Nagel | Chief Data Scientist of Onefi, Cape Town Area, South Africa | South Africa |
| Ngozi Dozie | Director, One Finance & Investment Limited, Lagos | Nigeria |
| Dr. Olufemi Oyenuga | Director Cloud Enterprise Architect, Data Scientist Oracle | Nigeria |
| Humphrey Obie | Data Science Doctoral Researcher, Swinburne University of Technology, Melbourne, Australia | Australia |
| Babatunde Olorisade | Machine Learning Doctoral Researcher, United Kingdom | United Kingdom |
| Koye Sodipo | Associate Consultant at Bain & Company, Nigeria | Nigeria |
| Phil Ogun | Senior Research Associate in Manufacturing Automation & Informatics, Loughborough University, UK | United Kingdom |
| Ladi Omole | Partner at LaDIOM LLC, Greater New York. | USA |
| Rahmon Ojukotola | Founder & Director, StartCredits, Nigeria | Nigeria |
| Abiodun Modupe | PhD. Candidate, University of the Witwatersrand, South Africa | South Africa |
| Chika Obuah | Chief Executive Officer, Czoid Ltd, Nigeria | Nigeria |
| David Adelani | PhD. Student at Max Planck Institute for Software Systems, Saarbrücken Area, Germany | Germany |

# SOME OF OUR MENTORS

| | | |
|---|---|---|
| Moyosoreoluwa Akala | Data Scientist, Hood Group, United Kingdom | United Kingdom |
| Jeremiah Fadugba | AI Developer, Nal Vietnam JSC | Nigeria |
| Ransford Hyman, Ph.D | Deep Learning Software Engineer at Intel Nervana | USA |
| Jean Francois Aie | Manager, Advanced Analytics, Aimia Inc, Toronto, Canada | Canada |
| Dr. Taiwo Ajani | Program Coordinator, Computer Information Systems at Ferrum College, Virginia | USA |
| Stephen Olateru | Big Data Specialist, Asset Management Corporation of Nigeria | Nigeria |
| Omobolaji Kujembola | Business Intelligence Manager, PwC | Nigeria |
| Abiodun Shomoye | Team Lead, DataIQ Nigeria | Nigeria |
| Abayomi Adelowotan | Lean Six Sigma and Data Analytics Advisor, Chevron | Nigeria |
| Sharat Manikonda | Data Scientist, ExcelR and Innodatatics, Hyderabad Area, India | India |
| Aneshan Ramaloo | Analytics Practice Lead for Africa at SAS, Johannesburg Area, South Africa | South Africa |
| Olalekan Akinsande | Business Analyst, Crown Interactive Limited, Nigeria | Nigeria |
| Dr. TaiwoTogun | Founder/CEO/Data Scientist, SeqHub Analytics LLC, r New York | USA |
| Jeff Herman | Data Scientist, Kansas City Southern Railway, Kansas City, Missouri Area | USA |
| Alistair Miles | Head of Epidemiological Informatics at the Centre for Genomics and Global Health, University of Oxford | United Kingdom |
| Yigal Weinberger | Lead Data Scientist, Palo Alto Networks, Tel Aviv Area, Israel | Israel |
| Mohit Nalavadi | Data Scientist, Commercetools, Berlin Area, Germany | Germany |
| Alex Conway | Founder/Research Director, NumberBoost, Cape Town Area, South Africa | South Africa |
| Liemiso Mpota | Data Scientist, Barclays Africa Group Limited/ABSA, Johannesburg Area, South Africa | South Africa |
| Samuel Edet | Doctoral Researcher, IMT School for Advanced Studies, Italy | Italy |
| Dr. Kolawole Adebayo | Research fellow, CIRSFID, Bologna | Bologna |
| Olalekan Aboubakar | Senior Data Scientist, SiriusXM, Greater New York, USA | USA |
| Faith Mwema | Senior Associate, PricewaterhouseCoopers | Kenya |

# 19. DISCLOSURE

Data Science Nigeria is committed to full transparency about its activities and we welcome requests for information and feedback on our work. However, there may be circumstances in which we are unable to disclose information; for example, for reasons of security, confidentiality, or because of the sensitive nature of our internal documents. In the event that we are unable to disclose information, we will provide reasons for the non-disclosure.

# 20.

# HELP DATA SCIENCE NIGERIA TO MAKE SUSTAINABLE CHANGE

To learn more, or to find out how to support, visit www.datasciencenigeria.org
or send an email to info@datasciencenigeria.org

## PARTNER WITH US

Data Science Nigeria (DSN) is continuously looking for strategic partnerships and engagement opportunities. Here are some of the key reasons to consider partnering with us:

Our vision and core values are clearly focused on how to leverage AI/data science for socio-economic development in Nigeria and the wider African context.

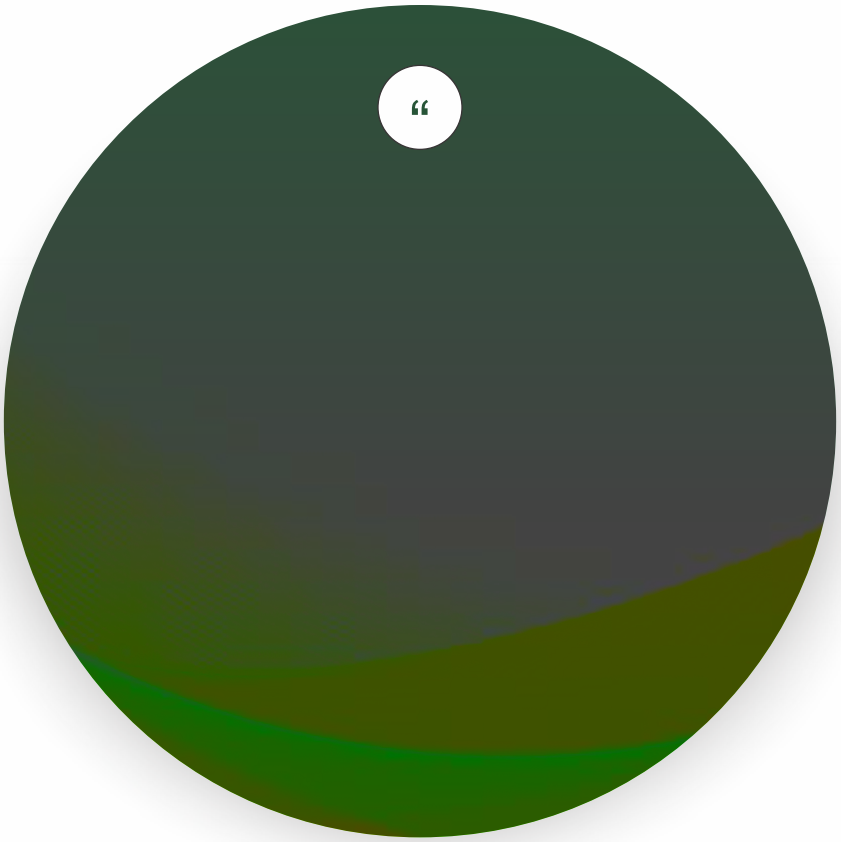
DSN is a deeply rooted local partner in Nigeria and in Africa, with extensive relationship in academia, the private sector and government institutes.

DSN is the driving force for promoting data science and its convergence with AI in Nigeria and in Africa.

DSN already has well-established and successful programmes that can be customised to undertake the proposed activities and accomplish the organisation's objectives.

Join the conversation!
Mobilize your networks for good.

: Datasciencenig
: Datasciencenigeria
: facebook.com/datasciencenig
: https://goo.gl/Vcjjyp
: www.linkedin.com/in/datasciencenigeria
: info@datasciencenigeria.org
: +2348140000853

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