

## SCHOOL FOR DATA SCIENCE AND COMPUTATIONAL THINKING

### School for Data Science and Computational Thinking African Data Science Academy Short-courses October to December 2021

#### In the news

The School celebrated its second birthday on the 29th of July. Despite living most of its life under lockdown, the School has grown in both number of staff members and in terms of impact. The School has appointed nine researchers and twelve postdoctoral fellows in the recent past. We will soon be attracting more academics and postdoctoral fellows to the School in the near future. Our current research expertise range from bioinformatics to cybersecurity and artificial intelligence. Our researchers in genomic surveillance impact national and international policies related to Covid-19.

We have been busy at the School for Data Science and Computational Thinking (Data School) with our partners planning various activities for our stakeholders, including short-courses, hackathons and bursaries. In some exciting news for prospective students, the Department of Mathematical Sciences will offer a new MSc in Machine Learning and AI from 2022. Applications are open.

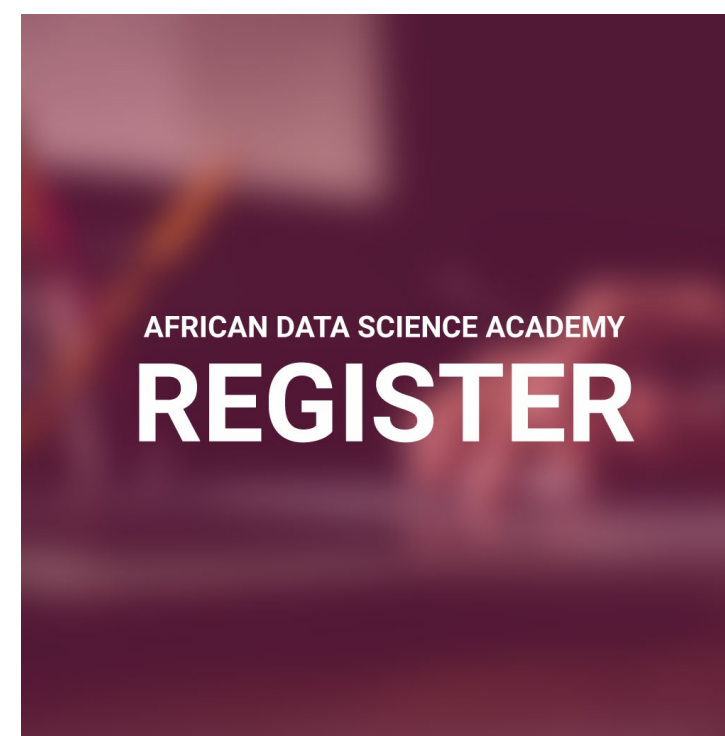
#### Short-Courses

Through the African Data Science Academy, we are presenting various online short-courses:

- Introduction to Data Ethics (18 – 22 October 2021)
- Data Science for Algorithmic Trading Strategies (25 – 29 October 2021)
- Introduction to Statistics with R (11 October – 10 December 2021)
- Introduction to Data Science (15 – 19 November 2021)
- Introduction to Data Science and Computational Thinking (04 October – 01 November 2021)
- Introduction to Blockchain Technologies (01 September to 31 December 2021) – seats available

#### Data Science for Algorithmic Trading Strategies

This online short-course investigates methods implemented in multiple quantitative trading strategies with emphasis on automated trading and quantitative finance based approaches to enhance the trade-decision making mechanism. The course provides a comprehensive view of the algorithmic trading paradigm and some of the key quantitative finance foundations of these trading strategies. Topics explore markets, financial modeling and its pitfalls, factor model based strategies, portfolio optimization strategies, and order execution strategies. [Info](#)



#### Short-course bursaries

The Postgraduate Office at Stellenbosch University (SU) made bursary funding available for registered postgraduate students at SU to attend short courses at our African Data Science Academy during the second semester of 2021. Applications closed on the 23rd of August with bursaries awarded to over 120 postgraduate students at Stellenbosch University. Congratulations to those who were awarded a bursary to study a short-course through the African Data Science Academy.

#### Hackathon

Currently, the School is hosting the FX Challenge. This challenge, offered in partnership with Standard Bank, asks participants to build a solution that provides actionable insights in the foreign exchange space. There are student participants from Stellenbosch University, University of Cape Town, Nelson Mandela University and Rhodes University. The Hackathon ends on the 16th of October.

#### Postgraduate studies and bursary opportunities at Stellenbosch University

##### MSc in Machine Learning and AI

We invite applications for the MSc through the university application website. Click here for more information or contact Prof Willie Brink: [wbrink@sun.ac.za](mailto:wbrink@sun.ac.za)

##### MEng in Industrial Engineering (focal area: Data Science)

We invite students to apply for the MEng through the university application website. Contact Prof Andries Engelbrecht: [engel@sun.ac.za](mailto:engel@sun.ac.za) for more information.

##### PhD: big data for bioenergy in Africa

Funded opportunity for a joint PhD between Stellenbosch University and University of Groningen in the Netherlands. For more information, click [here](#) or email Prof Neil Goosen: [njgoosen@sun.ac.za](mailto:njgoosen@sun.ac.za)

##### PhD: data science for conflict analysis

Funded opportunity for PhD scholarship for those interested in the intersection of data science and conflict analysis. The successful candidate will work with a multinational team. For more information, click [here](#), or email Prof Brian Ganson: [brian.ganson@usb.ac.za](mailto:brian.ganson@usb.ac.za)

#### Vacancies

The school will be hiring research staff, postdoctoral fellows and lecturing staff in the near future. These will be advertised on both the School's website and Stellenbosch University's vacancies page as these positions open up.

#### Other resources

Oracle Cloud Infrastructure training and certification - click [here](#) for more information.

Women and Data in Africa Workshop registration - click [here](#) for more information.

Women and Data in Africa Summer School - click [here](#) for more information.

International Online IT-School 2021 presented by Northern (Arctic) Federal University in Russia - click [here](#) for more information.



Please feel free to contact us with any questions and queries you may have!

#### Prof Kanshukan Rajaratnam

Director: School for Data Science and Computational Thinking at Stellenbosch University. E-mail: [dataschool@sun.ac.za](mailto:dataschool@sun.ac.za)  
Twitter: [@kanshuk](#), [@SUDataSchool](#) LinkedIn: [/kanshukan](#)

The School for Data Science and Computational Thinking (Data School) at Stellenbosch University aims to be a world-class institution for data science and computational thinking in - and for - Africa. It facilitates non-conventional, trans-faculty approaches to teaching and research in data science and computational thinking at Stellenbosch University in an interdisciplinary way.