Stellenbosch
UNIVERSITY
IYUNIVESITHI
UNIVERSITEIT

DATA SCIENCE AND COMPUTATIONAL THINKING
INZULULWAZI NGEDATHA NENGQIQO YOKUBALA
DATAWETENSKAP EN REKENAARDENKE

Postdoctoral Research Fellowship:
Plant Health and Pesticide Residue Modelling

School for Data Science and Computational Thinking & Chair in Plant Health

February 2023

The School for Data Science and Computational Thinking and the Chair in Plant Health in the Faculty of AgriSciences are inviting applicants for a Postdoctoral Research Fellowship in plant health and pesticide residue modelling.

The global population exceeded 8 billion in November 2022 and is expected to reach 10 billion by 2050. Ensuring a secure supply of safe and nutritious food, whilst limiting our ecological and climatic impact will be one of humanity's major challenges over the coming decades. To this end, we will have to apply leading biotic and abiotic technologies to strike the optimal balance between food supply, food safety and environmental impact. The recent advances in data science techniques and computing software and hardware are opening a new avenue for innovation. At the same time, the data available to the agricultural sector is expanding daily. However, the efforts to integrate and analyse this ever-expanding data asset is limited.

In light of the ever-expanding data availability, the improvement in data science resources and the need to minimise pesticide use or residues, we would like to advertise for a Postdoctoral Research Fellowship in Plant Health and Pesticide Residue Modelling. The incumbent is to work with the Director of the School, the Chair in Plant Health and the Stellenbosch AgroInformatics Initiative to develop an academic research agenda in plant health and pesticide residue modelling.

Responsibility and expectations of the candidate:
- Develop an academic research agenda in plant health and pesticide residue modelling.
- Liaise with stakeholders such as the Research Chair in Plant Health and Stellenbosch AgroInformatics Initiative to explore opportunities in the academic research space.
- Regularly meet with stakeholders at Stellenbosch University to disseminate research findings.
- Publish scientific results in accredited journals.
- Help to build capacity in agro-food data science in general and plant health modelling at the School and Faculty of AgriSciences
- Facilitate inter-, multi- and trans-disciplinary research in the area of plant health and pesticide residue modelling
- Take part in the activities of the School.

Host: School for Data Science and Computational Thinking, Stellenbosch University.

forward together
sonke siya phambili
saam vorentoe

Data Science and Computational Thinking | iNzululwazi ngeDatha neNgqiqo yokuBala | Datawetenskap en Rekenaardenke
+27 21 808 3753 | kanshu@sun.ac.za | www.dataschool.sun.ac.za
Private Bag X1 | Privaat Sak X1 | Matieland 7602 | South Africa | eMzantsi Afrika | Suid-Afrika

Requirements:

- PhD in Data Science / Machine Learning / Artificial Intelligence with demonstrated knowledge of biological systems modelling.
- Evidence of the ability to publish in internationally acclaimed journals
- Previous experience in engaging with students and other stakeholders will be an advantage.
- Previous teaching experience in coding and data science will be an advantage.
- Evidence of interest in crop production, plant health or pesticide modelling

Remuneration: Negotiable between R 300 000 – R375 000 p/a depending on demonstrated skill set. Please note that postdoctoral fellows are not appointed as employees; their fellowships are awarded tax-free, and they are not eligible for employee benefits.

Length: This is a one-year fellowship, renewable for a second year, depending on performance and funding.

The incumbent is expected to be based physically at the School for Data Science and Computational Thinking at Stellenbosch University and may not take other paid roles without permission from the Director of the School for Data Science and Computational Thinking. The School's working hours are 8 a.m. to 5 p.m., Monday to Friday, and the successful candidate is expected to be primarily in the office during this time.

Applications

Applications should include a complete CV or resume, a motivation letter, and copies of academic papers, theses and dissertations. These should reach Dr Jan C Greyling at jancg@sun.ac.za before the 15th of March 2023.