



Faruk Dube

Doctoral Student

My Contact

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🌐 <https://ruqse.github.io>

in Faruk Dube

Education

- Swedish University of Agricultural Sciences, Sweden, 2019–Present
PhD in Biomedical Sciences
- Uppsala University, Sweden, 2016–2018
Masters of Medical Science in Infection Biology, Biological and Biomedical Sciences
- Makerere University, Uganda, 2009–2012
Bachelor of Science in Biomedical Laboratory Technology

Wet lab skills

- PCR-based techniques
- ELISA
- Bacterial, Viral, fungal and *C. elegans* culture
- DNA/RNA handling
- Sequencing library preparation

Computer skills

- Omics data analysis (Genome and Transcriptome)
- Pipeline building with Nextflow
- Data wrangling and visualisation
- Statistics
- Programming in R, Python and Bash
- Unix
- Git
- Illustration in Inkscape

Language

- Luganda (Native)
- English (Fluent)
- Swedish (Beginner – Intermediate)
- Swahili (Intermediate)

About Me

Data Scientist with a strong foundation in biology. I have expertise in utilizing computer programs to solve biomedical problems. With experience in working with a wide range of pathogens including viruses, fungi, bacteria, and parasites, I am currently a final year PhD candidate utilizing both wet-lab and bioinformatics to understand the mechanisms behind parasite drug resistance.

Professional Experience

Visiting Research Fellow | Northwestern University
2023/03 – Present

Activities:

- Leveraging machine learning and quantitative genetics to identify quantitative trait loci corresponding to Ivermectin drug response
- From QTL to gene; Apply CRISPR to determine functions of candidate genes

PhD candidate | Swedish University of Agricultural Science
2019/10 – Present

Activities:

- Thesis "Integrating genome-wide association and transcriptomics to identify ivermectin-responsive genes in a *Parascaris univalens* and *Caenorhabditis elegans* – a comparative approach to understand and control threatening anthelmintic resistance"
- Worm culture and drug exposure experiments
- RNA handling
- Primer design and RT-qPCR
- Transcriptomic data analysis and visualisation
- Manuscript writing
- Two scientific studies published

Research Engineer | National Veterinary Institute
2018/07 – 2019/10

Key responsibilities:

- Bacteria and Fungi culture and DNA handling
- DNA library preparation, sequencing, genome analysis
- Building NGS data analysis pipelines
- Provide bioinformatics support to different projects
- One scientific study published

Laboratory Technologist | Makerere university–Walter Reed Project
2013/04 – 2016/08

- Key responsibilities:
- Virus culturing
- Sample and RNA/DNA handling
- PCR- and ELISA-based assays
- Training interns