

MANUELA RUNGE, PhD

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Infectious disease epidemiologist with +5 years of experience in mathematical modeling of health interventions. Passionate about using analytical tools to improve population health. International experience working in Germany, Switzerland, Tanzania, and the United States.

EXPERIENCE

Manuela Runge GmbH – Winterthur, Switzerland

Owner and manager, January 2022 – present

- Research contracting, project management and accounting

Northwestern University – Chicago, United States (remote work)

Postdoctoral Research Collaborator, January 2022 – present

- Lead scientific projects on malaria intervention impact modeling
- Conduct analysis and prepare deliverables in joint projects with co-workers and collaborators.
- Create course material and provide mentorship in a faculty enrichment training program.

Northwestern University – Chicago, United States

Postdoctoral Researcher, January 2020 – December 2021

- Led scientific projects on COVID-19 burden forecasting and malaria intervention impact modeling.
- Enhanced analysis and deliverables in joint projects with co-workers and collaborators.
- Trained students and co-workers in python and use of high-performance computing.
- Improved documentation and 'how-to's documents to accelerate the use of programs by the team.

Swiss Tropical Public Health Institute – Basel, Switzerland

Ph.D. Student, September 2016 - December 2019

- Developed a comprehensive framework around malaria intervention impact modeling from data assembly to model calibration to the analysis of predictions.
- Generated training material and trained co-workers on the developed framework.
- Drove a self-initiated analysis idea to completion and strengthened collaboration with Tanzanian researcher.

Swiss Tropical Public Health Institute – Basel, Switzerland

Consultant, May 2016 – December 2018 and May 2019 - September 2019

- Communicated analysis demands, progress, and key findings to National Malaria Control Program and the NETCELL project team based in Dar es Salaam, Tanzania.
- Delivered modeling analysis outputs and reports to key stakeholder meetings, often with tight deadlines.
- Contributed to the development of the supplementary national malaria strategic plan 2018-2020.

Swiss Tropical Public Health Institute – Basel, Switzerland

Scientific Assistant, March 2016 - August 2016

- Developed an SOP for data collection and management practices for a school survey in Tanzania.
- Generated a detailed report of epidemiological findings shared with collaborators.

Ministry of Health and Social Welfare Tanzania – Dar es Salaam, Tanzania

Student Intern, March 2015 – August 2015

- Supervised data collection and data entry.
- Led data cleaning and data analysis, leading towards a scientific publication.
- Generated a new epidemiological malaria map, used to inform malaria risk stratification.

University Medical Center Hamburg-Eppendorf, Hamburg, Germany

Medical Data Manager, March 2014 – July 2016

- Supported statisticians in their statistical guidance of clinical researchers and doctoral students.
- Generated automated data description and analysis reports shared with clients.

SKILLS

Hard skills

- Microsoft Office: Word, Excel, PowerPoint
- Statistical programming: Python, R, Stata, SPSS
- Other: QGIS, EpiInfo, LaTeX, High-performance computing

Soft skills

- Strong interpersonal skills with a focus on team success
- Excellent solution-oriented and problem-solving skills
- Advanced organized work style
- Strong presentation and writing skills
- Extensive experience working in international teams

EDUCATION

Ph.D. Epidemiology – magna cum laude (very good)

University of Basel, Basel Switzerland

- Graduation: December 2019
- Thesis: *“Mathematical modeling of malaria control interventions to support strategic planning in Tanzania”*

M.Sc. Epidemiology – 5.5 (very good)

University of Basel, Basel, Switzerland

- Graduation: February 2016
- Thesis: *“The Use of Public Primary Schools for Malaria Surveillance in Tanzania”*

B.Sc. Health Sciences – 1.3 (very good)

University of Applied Sciences Hamburg, Hamburg, Germany

- Graduation: February 2014
- Thesis: *“The influence of the menopausal hormone therapy on the overall mortality – survival analysis of the control group of the MARIE study”*

VOLUNTEERING

Board member and committee chair, Applied Malaria Modeling Network (AMMnet)

January 2021 – present

- *Shaping future direction of AMMnet and leading the ‘Guidance and values’ committee activities.*

Correspondent, Malaria Eradication Alliance (MESA)

May 2018 - November 2020

- Generated daily reports of scientific talks at 3 international conferences, held virtually and in person.

Ph.D. student representative, University of Basel, Basel, Switzerland

January 2017 - March 2018

- Directed various requests and inquiries between faculty and Ph.D. students.

Tutoring, University of Applied Sciences Hamburg, Hamburg, Germany

September 2013 - February 2014

- Supervised and guided group discussions around methods on problem-oriented learning.