

Mossa Merhi Reimert



+45 25 71 13 42 Copenhagen, Denmark ✉ mossa@a2-ai.com ministats.dev
🐙 [GitHub](#) [LinkedIn](#) [ORCID](#)

Summary

I am a Senior Scientific Software Engineer at [A2-Ai](#), working where statistical modelling, research software, and product engineering meet. I founded and maintain [extendr](#), the R/Rust bridge, and build open-source infrastructure that turns mathematical models and research prototypes into software other people can run, inspect, and extend. My background includes a PhD in Veterinary Epidemiology, an MSc in Statistics, and more than a decade of scientific computing, research, and teaching.

Highlights

- Founded and maintain [extendr](#) and related R/Rust package infrastructure
- Turn statistical and mathematical models into tested, maintainable software
- Combine probability, statistics, and scientific computing with practical engineering constraints
- Communicate across researchers, developers, students, and international collaborators

Experience

Senior Scientific Software Engineer 2025–Present
A2-Ai

- Design scientific software that turns statistical and mathematical models into maintainable product workflows
- Translate research prototypes into tested, documented systems across implementation, architecture, and cross-disciplinary collaboration

Postdoctoral Researcher 2024–2025
University of Copenhagen

- Specialised in computational modelling of disease spread, surveillance, and control in an economic context
- Developed modelling software and R packages for applied epidemiological research

External Lecturer Copenhagen · Spring 2025
DIS Study Abroad

- Taught "Artificial Neural Networks and Deep Learning"

Research Assistant 2021–2022
University of Copenhagen

- Worked on the NordForsk-funded DigiVet project on facilitating registry data between authorities, stakeholders, and citizens
- Coordinated data requirements across multiple stakeholders and improved data quality in research workflows

Data Scientist 2015–2016
SHFT ApS

- Transformed inertial motion sensor data into KPIs describing running technique
- Worked with MATLAB, signal processing, sensor fusion, visualisation, and C# / Xamarin

Education

PhD in Veterinary Epidemiology 2019–2024
University of Copenhagen

- Modelled the spread of African Swine Fever between wild boar and domestic pigs
- Worked on simulator-based inference, ordinary differential equations, and wildlife-livestock interface problems

MSc in Statistics 2016–2018
University of Copenhagen

Publications

Peer-reviewed

- **Modelling PRRS transmission between pig herds in Denmark and prediction of interventions impact** (2025). [doi:10.1016/j.prevetmed.2025.106692](https://doi.org/10.1016/j.prevetmed.2025.106692)
- **Choice of landscape discretisation method affects the inferred rate of spread in wildlife disease spread models** (2025). [doi:10.1016/j.jtbi.2024.111963](https://doi.org/10.1016/j.jtbi.2024.111963)
- **extendr: Frictionless bindings for R and Rust** (2024). [doi:10.21105/joss.06394](https://doi.org/10.21105/joss.06394)

Research Software

extendr

Core maintainer · 2020–Present

github.com/extendr/extendr

Frictionless bindings between R and Rust. Core maintainer of the project and the wider tooling around the R-Rust bridge. Published in JOSS ([doi:10.21105/joss.06394](https://doi.org/10.21105/joss.06394)) and supported by an R Consortium ISC grant for modern OOP tooling.

miniextendr

Author · 2024–Present

github.com/a2-ai/miniextendr

A Rust-R interoperability framework for building R packages with Rust backends. Includes ExternalPtr wrappers, ALTREP support, and CRAN-ready packaging.

hexscape

Co-author

R package

Spatial discretisation and anonymisation in R using CORINE land cover data. Companion to the submitted Preventive Veterinary Medicine manuscript.

Grants

- Accepted by the R Consortium Infrastructure Steering Committee (ISC) for "**extendr: Modern OOP tools**" (2025), covering the vctrs/S3 Support and S7 Support milestones

Conferences

Cascadia R Conf 2025

Portland, OR · 20 June 2025

cascadiarconf.org

Co-authored [workshop material](#) with Josiah Parry for two workshops: "[Intro to Rust for R Developers](#)" and "[Building Rust based R Packages](#)" using extendr.

Scientific Computing in Rust 2024

18 July 2024 · Online

scientificcomputing.rs

Talk: "extendr: Frictionless bindings for R and Rust." Live and online presentation (10 min). Hosted by organisers from University College London (UK) and University of Colorado Boulder (USA).

GeoVet 2023

20 September 2023

Silvi Marina, Teramo, Italy

Senior oral presentation (20 min + 5 min discussion): "Choice of Landscape Discretisation Affects the Rate of Spread in Wildlife Disease Models." International Conference of Spatial Epidemiology, Geostatistics and GIS applied to animal health, public health, and food safety.

External Roles

- Partner-sponsored developer at A2-Ai in the RSMF-backed project [Enabling the Next Generation of Contributors to R](#)

Awards

- Member of the winning team at Aarhus' COVID-19 Datathon (2021), a weekend-long data-analysis challenge hosted jointly by MIT, Imperial College London, and Aarhus University

Skills

R Rust Foreign Function Interface (FFI) Git & GitHub Actions MATLAB Python
PyTorch C# C / C++ Bash Typst Statistical modelling Scientific computing
Technical teaching