








# EMMA SKARSTEIN

Passionate about science communication, data visualization and transparent research. Solid background in mathematics and statistical research.

## EDUCATION



- current | 2020 ● **PhD candidate**  
Norwegian University of Science and Technology  Trondheim, Norway  
Measurement error and missing data in explanatory variables. Bayesian modelling using integrated nested Laplace approximation (INLA).
- 2020 | 2018 ● **M.S. in Mathematical Sciences**  
Norwegian University of Science and Technology  Trondheim, Norway  
Thesis: *Accounting for spatial bias in citizen science observations of Norwegian freshwater fish by using an effort spatial field*
- 2018 | 2015 ● **B.S. in Mathematical Sciences**  
Norwegian University of Science and Technology  Trondheim, Norway  
Thesis: *The EM algorithm and some applications in population genetics*

## WORK EXPERIENCE


- 2023 | 2023 ● **Teaching as a part of PhD position**  
Norwegian University of Science and Technology  Trondheim, Norway  
Responsible for projects and some teaching in the courses ST1201 Statistical methods (two semesters), TMA4268 Statistical learning (three semesters), TMA4265 Stochastic modelling and TMA4275 Survival analysis.
- 2019 | 2018 ● **Accountant**  
Effektiv Altruisme Norge  Oslo, Norway (remote)  
Responsible for payroll of up to 7 employees, as well as all regular routines related to finance and accounting in a charitable organization.
- 2018 & 19 (fall) ● **Teaching assistant**  
Norwegian University of Science and Technology  Trondheim, Norway  
Teaching assistant in the course ST1201 Statistical Methods. Responsible for weekly exercise sessions and grading of exercises.
- 2018 summer ● **Research assistant**  
Aalto University  Helsinki, Finland  
Helped develop an algorithm for automated brain stimulation. Acknowledged in [Tervo et al. \(2020\)](#).





## CONTACT INFO

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## SEE MY WORK

 [emmaskarstein.github.io](https://emmaskarstein.github.io)  
Homepage and blog, with a selection of work and posts.

 [github/emmaskarstein](https://github.com/emmaskarstein)  
Code and projects, for example [my TidyTuesday contributions](#) and [various visualization projects](#).

 [Google Scholar](#)  
Published academic articles.

*I made this resume in R with the package [pagedown](#).*

*My source code is available [here](#).*

*Last updated on 2024-05-24.*



## SELECTED PUBLICATIONS

- 2024 ● [The Point Process Framework for Integrated Modelling of Biodiversity Data](#)  
Submitted to Environmetrics  
Adjei, K.P; Mostert, P; Sicacha-Parada, J; Skarstein, E.S; O'Hara, R.B
- 2023 ● [A joint Bayesian framework for missing data and measurement error using integrated nested Laplace approximations](#)  
Biometrical Journal  
Skarstein, E.S; Martino, S; Muff, S
- 2022 ● [Insights into the quantification and reporting of model-related uncertainty across different disciplines](#)  
iScience  
Simmonds, E.G. et al.



## VOLUNTEER EXPERIENCE

- 2024 ● **Organizer**  
R Ladies Trondheim  
Started the local group R Ladies Trondheim, which is a meeting place for women who use the programming language R, across many different disciplines.
- 2023 | 2020 ● **Representative for temporary employees, statistics group**  
Department of Mathematical sciences, NTNU  
Represented temp. employees in administrative and organizational matters, organized social activities in the statistics group.
- 2019 | 2018 ● **Treasurer**  
Trondheim Student Garden  
Full responsibility for the finances of the student garden. Initiated a collaboration with Moholt student kindergarten.
- 2018 | 2017 ● **Head of board**  
Effektiv Altruisme NTNU  
Student organization with a goal of streamlining the foreign aid sector and providing new knowledge to students regarding career choices for a better world. 30 active members.



## COURSES

- 2022 ● **NTNU's Research leadership course**  
Held by Lars Christian Lassen, Mobilize Strategy Consulting. 2-day course targeted at PhD-candidates, designed develop an understanding of leadership in a research context.

## SKILLS

**PROGRAMMING** | R, Python, Matlab, C++, GitHub

**R-PACKAGES** | ggplot2, tidyverse

**LITERATE CODING** | LaTeX, R markdown, Xaringan slides, Quarto

**MICROSOFT OFFICE** | Word, PowerPoint, Excel, Outlook, Teams

**GOOGLE** | Drive, Docs, Sheets, Forms

**LANGUAGES** | English (native), Norwegian (native), French (B1)

## MY R PACKAGES

**inlamemi** | Bayesian models for measurement error and missing data in INLA (integrated nested Laplace approximations).

**valgdata** | Simple functions for visualizing Norwegian election results.

**power.usage.analysis** | Explore and analyze personal power consumption data from Elhub.no.

## GRAPHICAL WORK

**TidyTuesday Contributions** | 10+ visualizations of data from the TidyTuesday project.

**British Monarchs** | The lifespans of the last monarchs of Britain and England.

**Missing data in INLA** | Award winning conference poster, based on a poster for the movie Psycho (1960).