Chi Zhang

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Experience

R developer — University of Oslo

2023.04 - present, Oslo, Norway

- Develop and maintain R packages in collaborative projects within drug development and infectious disease surveillance: bayesynergy (University of Cambridge), <u>CSIDS</u> (Norwegian Institute of Public Health)
- Develop optimization algorithm in R for sustainable diet in Nordic collaborative project: NorEden
- Contribute to PHUSE CAMIS project, comparing statistical methods in R and SAS for pharmaceutical industry https://github.com/PSIAIMS/CAMIS

Lecturer in biostatistics and R programming — University of Oslo

2023.01 - present, Oslo, Norway (part-time)

- Lead the transition of statistics course at the medical faculty using R, GitHub and quarto, which was positively received by both instructors and students. Course website https://ocbe-uio.github.io/ teaching mf9130e/
- Instructor of 3 biostatistics courses and the Carpentries workshop (R for Reproducible Scientific Analysis)

Data scientist — Norwegian Institute of Public Health / Folkehelseinstituttet 2020.10 - 2023.02, Oslo, Norway

- Develop, maintain and improve Sykdomspulsen, the open source infrastructure for real time public health surveillance on infectious disease and mortality in Norway. Sykdomspulsen has been the core of emergency preparedness and response during the COVID-19 pandemic.
- Develop and automate data I/O, cleaning, analysis and reporting tasks using R and CI/CD tools
- Develop the R shiny website for municipal public health officers (kommunelege)
- Develop and maintain R packages (link) to facilitate visualisation, computing and reporting
- Responsible statistician for the Norwegian Mortality Monitoring (NorMOMO, <u>link</u>), part of the European network EuroMOMO (<u>link</u>)
- Responsible for Sykdomspulsen's collaboration with Dødsårsaksregisteret (Cause of Death Registry)

Statistical advisor — Oslo Center for Biostatistics and Epidemiology

2016.08 - 2019.09 and 2021.09 - 2023.08, Oslo, Norway (part-time)

- Provide statistical assistance on methodology and result interpretation to medical researchers and clinicians in 10+ projects, publishing 4 advising papers
- Collaborate with clinicians and perform clinical data analysis using R, edit, draft papers
- Supervise statistical work by medical students

Education

Ph.D., Biostatistics — University of Oslo

2022, Oslo, Norway

Thesis: Representation and utilisation of hospital Electronic Health Records data

MSc, Statistics — Imperial College London

2016, London, UK

BSc, Mathematics with Finance, 1st Class Honour — University of Liverpool

2014, Liverpool, UK

BSc, Financial Mathematics, 1st Class Honour — Xi'an Jiaotong Liverpool University

2014, Suzhou, China

Selected Talks

Transforming Medical Statistics Classroom with R and Quarto. 2023. UseR Regional Meeting, Basel (<u>link</u>) Introducing Sykdomspulsen, an automated public health surveillance platform. 2022. Oslo UseR Meetup (<u>link</u>)

Software

qtwAcademic (link)

bayesynergy (link)

cstime (link)

csmaps (link)

csdata(link)

For a complete list of softwares, please see this page (<u>link</u>)

Skills

Programming:

- Scientific computing: R, Matlab. Experience with R package development
- Bash scripting
- Version control: Git
- CI/CD: Github Action, Jenkins, Airflow
- Database: SQL
- Web: Quarto, R shiny

Statistics and machine learning

- Time series
- Regression analysis
- Multivariate analysis
- Machine learning tools including neural networks

Languages

English (professional proficiency), Chinese (native), Norwegian (intermediate), Italian (basic)

Honors and awards

RStudio diversity scholarship (RStudio, 2021)

Scholarship for excellent academic performance (Xi'an Jiaotong Liverpool University, 2010 and 2011)