

Akhil Sadam

AEROSPACE DEPARTMENT, UNIVERSITY OF TEXAS AT AUSTIN

📄 akhilsadam.github.io | 📖 publications | [akhilsadam](#) | [akhil-sadam](#) | ☁️ [artificier](#)
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simulation architect / automation engineer, independent game developer and composer.

Positions

RESEARCH ASSOCIATE - SOUTH AFRICA CENTRE OF EXCELLENCE IN EPIDEMIOLOGICAL MODELLING AND ANALYSIS	2021-
RESEARCH FELLOW - LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE	2020-
RESEARCH ASSISTANT - UNIVERSITY OF BRISTOL	2019
DATA SCIENTIST - FUNDING CIRCLE	2017-2019
RESEARCH PLACEMENT - UNIVERSITY OF GLASGOW	2015

Qualifications

PHD IN EPIDEMIOLOGY - UNIVERSITY OF BRISTOL	2015-2019
MSC ADVANCED MATHEMATICAL BIOLOGY - UNIVERSITY OF YORK	2014-2015
MMATH MATHEMATICS - UNIVERSITY OF DURHAM	2010-2014

Skills

Analytical

MATHEMATICAL MODELLING, STATISTICAL MODELLING, BAYESIAN STATISTICS, REPRODUCIBLE RESEARCH, SOFTWARE DEVELOPMENT

Programming

R (ADVANCED), STAN (ADVANCED), PYTHON, JULIA, TURING.JL, C/C++, BASH, SQL, GIT, DOCKER, AWS, GCS, AZURE

Selected publications

ABBOTT, SAM, KATHARINE SHERRATT, MORITZ GERSTUNG, AND SEBASTIAN FUNK.

‘ESTIMATION OF THE TEST TO TEST DISTRIBUTION AS A PROXY FOR GENERATION INTERVAL DISTRIBUTION FOR THE OMICRON VARIANT IN ENGLAND’. PREPRINT. EPIDEMIOLOGY, 10 JANUARY 2022.

[HTTPS://DOI.ORG/10.1101/2022.01.08.22268920](https://doi.org/10.1101/2022.01.08.22268920).

DAVIES, N.G., ABBOTT, S., BARNARD, R.C., JARVIS, C.I., KUCHARSKI, A.J., MUNDAY, J.D., PEARSON, C.A., RUSSELL, T.W., TULLY, D.C., WASHBURN, A.D. AND WENSELEERS, T., 2021. ESTIMATED TRANSMISSIBILITY AND IMPACT OF SARS-COV-2 LINEAGE B. 1.1. 7 IN ENGLAND. SCIENCE.

PAVELKA, M., VAN-ZANDVOORT, K., ABBOTT, S., SHERRATT, K., MAJDAN, M., CMMID COVID-19 WORKING GROUP, INŠTITÚT ZDRAVOTNÝCH ANALÝZ, JARČUŠKA, P., KRAJČÍ, M., FLASCHE, S., FUNK, S., 2021. THE IMPACT OF POPULATION-WIDE RAPID ANTIGEN TESTING ON SARS-COV-2 PREVALENCE IN SLOVAKIA. SCIENCE 372, 635-641. [HTTPS://DOI.ORG/10.1126/SCIENCE.ABF9648](https://doi.org/10.1126/SCIENCE.ABF9648)

SHERRATT, K. *, ABBOTT, S. *, MEAKIN, S.R., HELLEWELL, J., MUNDAY, J.D., BOSSE, N, JI, M., FUNK, S., 2021. EXPLORING SURVEILLANCE DATA BIASES WHEN ESTIMATING THE REPRODUCTION NUMBER: WITH INSIGHTS INTO SUBPOPULATION TRANSMISSION OF COVID-19 IN ENGLAND. PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY B: BIOLOGICAL SCIENCES 376, 20200283. [HTTPS://DOI.ORG/10.1098/rstb.2020.0283](https://doi.org/10.1098/rstb.2020.0283)

ABBOTT, S., HELLEWELL, J., THOMPSON, R.N., SHERRATT, K., GIBBS, H.P., BOSSE, N.I., MUNDAY, J.D., MEAKIN, S., DOUGHTY, E.L., CHUN, J.Y. AND CHAN, Y.W.D., 2020. ESTIMATING THE TIME-VARYING REPRODUCTION NUMBER OF SARS-CoV-2 USING NATIONAL AND SUBNATIONAL CASE COUNTS. *WELLCOME OPEN RESEARCH*, 5(112), P.112.

See here for a full list of my publications.

Selected software

SCORINGUTILS - UTILITIES FOR SCORING AND ASSESSING PREDICTIONS	epiforecasts.io/scoringutils
EPINOWCAST - HIERARCHICAL NOWCASTING OF RIGHT CENSORED EPIDEMIOLOGICAL COUNTS	epiforecasts.io/epinowcast
COVIDREGIONALDATA - SUBNATIONAL DATA FOR THE COVID-19 OUTBREAK	epiforecasts.io/covidregionaldata
EPINow2 - ESTIMATE REAL-TIME CASE COUNTS AND TIME-VARYING EPIDEMIOLOGICAL PARAMETERS	epiforecasts.io/EpiNow2

Software that I have primarily developed has had over 30k downloads and been used/is used in multiple public health organisations such as the WHO and the ECDC. Software that I have managed the development of has had over 20k downloads. See my GitHub for more on my software output.

Research (Co-) Supervision

NIKOS BOSSE - PHD 2020-

Teaching

DISCRETE TIME DETERMINISTIC MODELS - MODERN TECHNIQUES IN INFECTIOUS DISEASE MODELLING SHORT COURSE	2022
PROGRAMMING BEST PRACTICES - MODERN TECHNIQUES IN INFECTIOUS DISEASE MODELLING SHORT COURSE	2020-22,
INTRODUCTION TO INFECTIOUS DISEASE MODELLING SHORT COURSE - UNIVERSITY OF BRISTOL	2018-2019,

Selected presentations

HOW CAN GOVERNMENTS PLAN FOR THE NEXT PANDEMIC? LSHTM CENTRE FOR EPIDEMIC PREPAREDNESS AND RESPONSE SYMPOSIUM	2022
ECDC FORECASTING HUB SEMINAR SERIES	2021
R/MEDICINE	2019
RESEARCH AND APPLIED EPIDEMIOLOGY SCIENTIFIC CONFERENCE	2018
RESEARCH AND APPLIED EPIDEMIOLOGY SCIENTIFIC CONFERENCE	2017
48TH UNION WORLD CONFERENCE ON LUNG HEALTH	2017
RESEARCH AND APPLIED EPIDEMIOLOGY SCIENTIFIC CONFERENCE	2016

See the details, slides, and recordings of all my presentations here

Service

SACEMA - PROVIDING SUPPORT AS PART OF THE OMICRON RESPONSE 2021-

GERMANY NOWCASTING HUB - DAILY NOWCASTS OF HOSPITAL ADMISSIONS BY DATE OF POSTIVE TEST. PART OF AN INTERNATIONAL COLLABORATION TO PROVIDE IMPROVED ESTIMATES IN REAL-TIME.	2021-
ECDC FORECASTING HUB - WEEKLY SHORT-TERM COVID-19 FORECASTS OF CASES AND ADMISSIONS	2021-
CDC FORECASTING HUB - WEEKLY SHORT-TERM COVID-19 FORECASTS OF DEATHS	2020-2022
SPI-M/SAGE - PROVIDED WEEKLY ESTIMATES OF THE REPRODUCTION NUMBER; SHORT-TERM FORECASTS; PROJECTIONS; AND MULTIPLE AD-HOC REPORTS	2020-2022