

Therese Anders

DATA SCIENTIST

✉ t.na.anders@gmail.com | 🌐 therese.rbind.io | 🌱 thereanders

Experience

Apple Inc.

Cupertino, CA

DATA SCIENTIST

2020–present

- Service Analytics, Forecasting, and Efficiency team – focused on building data products to monitor / forecast network and infrastructure demand.
- Full-stack data scientist developing front- & backend of interactive dashboards in R and Shiny.
 - Developed time series models, forecasts, and tools for automated anomaly detection.
 - Improved dashboard performance and UI/UX via Redis caching, JavaScript elements, effective reactive programming design patterns.
 - Designed interactive graphs and tabular displays to effectively visualize 2M+ data points.
 - Leveraged RStudio professional products to publish and maintain internal packages, dashboards, HTML documents, and APIs.
- Generated and maintained ETL pipelines via CI/CD tools, Docker, PostgreSQL, and S3 storage.
- Collaborated on R software development (internal packages, unit tests, version control via git/GitHub, documentation, code review).
- Authored internal blog posts and offered webinars to onboard team to new data science tools and programming principles.

Hertie School Data Science Lab

Berlin, Germany

DATA SCIENTIST | POSTDOCTORAL RESEARCH FELLOW

2019–2020

- Developed improved and extended estimates of GDP, population, and GDP per capita (1500-2019) via dynamic Bayesian modeling in Stan.
- Secured funding (\$10,000) for AWS compute and launched online help desk as data scientist for the SCRIPTS Data & Methodology Center.
- Supervised four research assistants and acquired funds (\$4,000) as co-PI on initiative computing underreporting in migrant fatality data.
- Boosted programming capacity of faculty and researchers by teaching 3 half-day data science workshops and consulting on statistical computing.

RStudio

Remote

SOFTWARE ENGINEERING INTERN

2019

- Engineered open-source software solutions for peer review of GitHub repositories via the ghclass R package (interfacing with the GitHub API).

University of Southern California (USC)

Los Angeles, CA

RESEARCH ASSISTANT

2014–2019

- Implemented and consulted on data management, statistical modeling, visualization, research design, and text analytics via R and Python.
- Co-authored five article-length publications and presented findings at leading conferences (NIPS, APSA, ISA, PolMeth, Peace Science).

USC Security and Political Economy (SPEC) Lab

Los Angeles, CA

DIRECTOR OF RESEARCH AND TRAINING

2016–2017

- Designed the lab's data science curriculum and taught 10 R programming workshops for graduate & undergraduate research assistants.
- Mentored and supervised 15+ research assistants for projects leading to publications in books and peer-reviewed journals.

Collaborative Research Center 700

Berlin, Germany

STUDENT ASSISTANT

2011–2013

- Managed promotional events and receptions (~200 participants) at large conferences; orchestrated doctoral career development workshops.

Education

University of Southern California

Los Angeles, CA

PHD POLITICAL SCIENCE & INTERNATIONAL RELATIONS

2020

Methodology certificate ('15); coursework in advanced machine learning, research design, Python programming

MA ECONOMICS

2015

Coursework in data visualization, business analytics, econometrics, machine learning

Freie Universität Berlin

Berlin, Germany

DIPLOM POLITICAL SCIENCE (MA EQUIVALENT)

2013

Duke University

Durham, NC

NON-DEGREE EXCHANGE

2011

Coursework in statistical analysis, maximum likelihood estimation

Universidad CEU Cardenal Herrera

Valencia, Spain

NON-DEGREE EXCHANGE

2010

Skills

R	Expert user, 10+ years of experience. Functional programming, package development, statistical modeling and forecasting, Bayesian models, machine learning, static & interactive visualization, data wrangling, spatial analysis
Shiny	Advanced user, 1+ years of full-time experience. Leveraging custom CSS, HTML, and JavaScript; database backends; caching (memory, Redis); modules; deploying dashboards into production
Python	Data wrangling, NLP, visualization
SQL	PostgreSQL
Version control	git, GitHub
CI/CD	Jenkins
Containers	Docker
Other software	Stan, Stata, \LaTeX , Adobe Illustrator
Languages	English (proficient), German (native), Spanish (intermediate), French (basic)

Awards

- 2021 **Best Visualization Award**, Journal of Peace Research
- 2019 **Kenneth E. Boulding Award for best graduate student paper**, International Studies Association
- 2017, 2015 **Graduate student paper award**, International Studies Association West

Teaching

- 2020 **Data science workshop series for faculty and PhD students**, Organizer and instructor for 3-part workshop *Hertie School*
- 2019 **Advanced data visualization**, Summer methods school *Florida State Univ.*
- 2016–2019 **Math and quantitative methods for social science PhD students**, Summer methods school *USC*
- 2017 **Maps in R**, Workshop *USC*
- 2016 **Data management in R**, 6-part workshop series *USC*
- 2016 **Data visualization in R**, 2-part workshop series *USC*

Publications

- [1] New Estimates of Over 500 Years of Historic GDP and Population Data (with C. Fariss & J. Markowitz). *Journal of Conflict Resolution*. Accepted.
- [2] Deportation, Crime, and Victimization (with S. Roza & S. Raphael). *Journal of Population Economics*. 2021.
- [3] Territorial control in civil wars: Theory and measurement using machine learning. *Journal of Peace Research*. 2020.
- [4] Bread before guns or butter. Introducing Surplus Domestic Product (SDP) (with C. Fariss & J. Markowitz). *Intl. Studies Quarterly*. 2020.
- [5] Moral Hazard: German Public Opinion on the Greek Debt Crisis (with B. Rathbun & K. Powers). *Political Psychology*. 2019.

Presentations

- Career pathways toward data science, USC SPEC Professionalization Series 2021
- Geospatial data visualization, Apple SAFE Data Science Lunch & Learn 2020
- Peer review in data science courses, rstudio::conf 2020
- Territorial control in civil wars: Theory and measurement using machine learning, International Studies Assoc. 2019, American Political Science Assoc. 2019, New Faces in Political Methodology 2019, Society f. Political Methodology 2018
- Measuring territorial control in civil wars using Hidden Markov Models: A data informatics-based approach, Neural Info. Processing Sys. 2017

[For complete list of teaching, presentations, and publications, see therese.rbind.io]