# JONATHAN BERRISCH

I specialized in econometrics for energy forecasting and am well-versed in R, C++, and Python. I currently work in academia between statistics and information technology. I research probabilistic forecasting and maintain a growing IT infrastructure with databases. I also actively contribute to open-source projects and disseminate knowledge by creating beautiful visualizations.
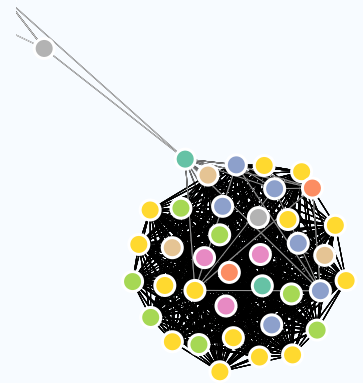
🎓 EDUCATION

Current | 2020

PhD. Candidate, Econometrics
University of Duisburg Essen   📍 Essen

- Probabilistic forecasting in energy markets

2020 | 2017

M.Sc., Economics
University of Duisburg Essen   📍 Essen

- Focused on Econometrics
- Gathered experience in R, Python and Git
- Graduated with Distinction: 1.2

2017 | 2013

B.Sc. Economics and Business Administration
FernUniversität in Hagen   📍 Remote

- Focused on Monetary Policy and Quantitative Economics
- Final Grade: 1.7

💻 SOFTWARE PROJECTS

2024

rolch
A Python Package for Online Distributional Regression

- Provides online estimation of models for distributional regression, respectively, models for conditional heteroskedastic data.
- Uses numba just in time compilation to improve performance.

2024

rcpptimer
An R package for Benchmarking C++ Code

- Provides bindings for cpptimer, a tic-toc class for timing C++ code
- Supports nested and overlapping timers and OpenMP parallelism
- Bridges the gap between R and C++ by offering a simple and efficient solution for timing code within the Rcpp ecosystem

2021

profoc
An R Package for Probabilistic Forecast Combination

- An R package to combine probabilistic forecasts using the CRPS learning algorithm introduced in Berrisch, Ziel, 2023
- The main algorithms are implemented in C++
- Bindings to R are realized using Rcpp

PERSONAL

- 🎂 1992
- 📍 Wuppertal, Germany
- ✉️ Jonathan@Berrisch.biz
- 📞 +49 172 2173741
- 🌐 berrisch.biz
- 🐙 BerriJ
- BerriJ
- 💼 University

LANGUAGE SKILLS

Skill	
R	
Python	
C++	
SQL	
Bash	
Javascript	

DEVELOPMENT TOOLS

Tool	
Git	
Docker	
Linux (Arch, NixOS, Ubuntu)	
CI / CD	
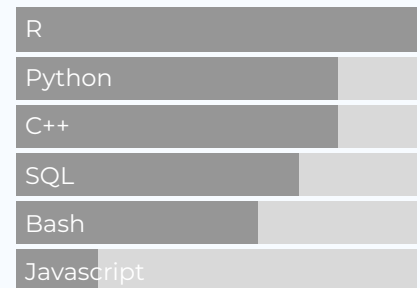
🧪 RESEARCH EXPERIENCE

Current | 2020

Research Assistant
University of Duisburg Essen   📍 Essen

- Chair of Environmental Economics and Renewable Energies Prof. Dr. Ziel
- Development and maintenance of Energymarket databases (MySQL, R, Python, Docker), which are used within and outside our department.
- Maintenance of the IT infrastructure (Arch, NixOS, Ubuntu)

2019 | 2018

Research Aide
University of Duisburg Essen   📍 Essen

- Chair of Econometrics: Prof. Dr. Christoph Hanck
- Working with R, Latex, Git, SQL
- First teaching experience

💼 INDUSTRY EXPERIENCE

2020 | 2020

Masters Degree Candidate
RWE Supply and Trading GmbH   📍 Essen

- Developing forecasting models for European natural gas prices
- Working with Python, Tensorflow, SQL, Git
- Published sstudentt

I gathered industry experience early by studying the bachelors to moonlight.

2017 | 2015

Working Student
Stepstone.de   📍 Duesseldorf

- Quality Assurance

2015 | 2014

Customer Service Representative
Stadtsparkasse Duesseldorf   📍 Duesseldorf

2014 | 2012

Banking Apprentice
Stadtsparkasse Duesseldorf   📍 Duesseldorf

📰 PUBLICATIONS

2025

rcpptimer: Rcpp Tic-Toc Timer with OpenMP Support
J. Berrisch - arXiv Preprint

2024

Online Distributional Regression
S. Hirsch, J. Berrisch, F. Ziel - arXiv Preprint

2023

CRPS Learning
J. Berrisch, F. Ziel - Journal of Econometrics

2023

Modeling volatility and dependence of European carbon and energy prices
J. Berrisch, S. Pappert, A. Arsova, F. Ziel - Finance Research Letters

2023 High-resolution peak demand estimation using generalized additive models and deep neural networks
J. Berrisch, F. Ziel - Energy and AI

2023 Multivariate Probabilistic CRPS Learning with an Application to Day-Ahead Electricity Prices
J. Berrisch, F. Ziel - International Journal of Forecasting

2022 Distributional modeling and forecasting of natural gas prices
J. Berrisch, F. Ziel - Journal of Forecasting

CONFERENCES AND WORKSHOPS

2024 useR! — International R User Conference
Speaker
📍 Salzburg, Austria

2024 International Symposium on Forecasting
Speaker
📍 Dijon, France

2024 Strommarkttreffen
Speaker
📍 Berlin

2023 International Ruhr Energy Conference (INREC)
Speaker
📍 Essen

2023 Statistische Woche 2023
Speaker
📍 Dortmund

2023 ECMI 2023 Conference
Speaker
📍 Wrocław, Poland

2023 Smart4RES Final Conference
Participant
📍 Paris, France

2022 International Symposium on Forecasting
Speaker
📍 Oxford

· Best Student Presentation Award

2022 UseR! 2022 Conference
Speaker
📍 Remote

2022 International Conference on Computational Finance 2022
Speaker
📍 Wuppertal

2021 International Symposium on Forecasting
Speaker
📍 Remote

2020 International Symposium on Forecasting
Speaker
📍 Remote

I like exchanging ideas, connecting with people and shaping the future.

| 2020 | **International Ruhr Energy Conference (INREC)** | |
| | Speaker | 📍 Remote |

| 2018 | **The 18th summer workshop: "European monetary policy in practice"** | |
| | Deutsche Bundesbank | 📍 Eltville am Rhein |

🤝 VOLUNTARY

Current | 2024	**Member of the Faculty Council**	
	University of Duisburg Essen	📍 Essen
	· Faculty of Business Administration and Economics	

| Current
\|
2023 | **Member of the Executive Board** | |
| | /dev/tal e.V. Hackerspace | 📍 Wuppertal |

2022 | 2020	**Member of the Student Parliament**	
	University of Duisburg Essen	📍 Essen
	· Member of the Presidium (2020 - 2021)	

2020 | 2019	**Committees**	
	University of Duisburg Essen	📍 Essen
	· Evaluation committee for Jun. Prof. Dr. Ziel (Student Member)	
	· Evaluation committee for Jun. Prof. Dr. Beck (Student Member)	
	· Appointments committee for a new proffessorship in economics esp. public finance (Student Member)	

2018	**Mentor**	
	University of Duisburg Essen	📍 Essen
	· Supporting the elementary students of M.Sc. Economics	

2018	**Mentor**	
	University of Duisburg Essen	📍 Essen
	· Supporting the elementary students of M.Sc. Economics	

🍪 INTERESTS

Cooking

Pad-Thai, Sourdough Bread, Lasagne, Cookies, etc.

Cycling

In everyday life and on vacation

Information Technology

At Home, at the Hackspace, etc.

· Self-Hosting: Tandoor, Home Assistant, Wanderer
· Building a Voron 2.4
· Fiddling around with hardware and software

I'm excited about connecting the dots and putting technology to good use.

Working in IT and spending time in a hackerspace is a perfect match.

Last updated on 2025-01-29.

Source: github.com/BerriJ/cv.