

Bert de Bruijn

📍 Bonaire, Caribbean Netherlands in lpdebruijn

Summary

Results-oriented and experienced Data Scientist with a PhD in Econometrics (specialization in Bayesian Econometrics and Forecasting). Dedicated to driving innovation and delivering measurable business impact by translating results into insights for end-users. Experience in Bayesian hierarchical modeling, creating reproducible Docker-based Python workflows, developing Modeling Strategies, and setting up CICD frameworks.

Work Experience

Nielsen Media Research, Lead Data Scientist

Rotterdam, NL

Nov. 2021 to Jan. 2024

2 years 2 months

- Successfully transforming the product offering to align with client needs and campaign specifics, introducing new tailored solutions for diverse campaign structures. Achieving a substantial increase in overall sales.
- Analyzing past product studies identifying key insights, to craft a thought-leadership piece. Communicating campaign components in client-friendly terms, enhancing industry credibility and trustworthiness.
- Acting as an independent researcher conducting research into new product offerings. Scoping out new products and product extensions (prototyping).
- Advising and assisting team members and other internal stakeholders on current and future products.
- Acted as people manager and driving development of other data scientists.

Nielsen Media Research, Senior Data Scientist

Rotterdam, NL

Feb. 2019 to Oct. 2021

2 years 9 months

- Created a modeling strategy to solve common problems and challenges in projects increasing the quality and consistency of the delivery.
- Developed and implemented an "AWS Runner" for seamless cloud-based project runs, improving efficiency and consistency during the model-exploration phase in response to project scope expansion.
- Established comprehensive versioning, testing, and documentation processes through Gitlab CICD, ensuring consistency, and quality, and facilitating future development.
- Drove the analytics and programming of a team that measures the effect of media and advertisements on TV tune-in or consumer satisfaction KPIs.
- Incorporated cloud computing (including CI/CD) and reproducible code workflow (using Docker) into our project workflow.
- Acted as people manager, engaging in thesis supervision and driving the development of data scientists. Set goals for the R&D initiatives.

Nielsen Media Research / Pointlogic, Data Scientist

Rotterdam, NL

Sept. 2017 to Jan. 2019

1 year 5 months

- Built and improved respondent-level models for measuring the effect of media/advertisements on TV tune-in or consumer satisfaction KPIs.
- Wrote code and made decisions around sample representativeness, data quality, controlling for confounding factors, testing assumptions; and translated results into client insights.
- Led the team transition of R to Python; set up internal Python package and initial Docker image for reproducible code.
- Created a hierarchical model for consistent full-season ad evaluations for a sports network that provided a cohesive narrative across the season while retaining granularity for individual games, meeting client expectations, and facilitating detailed analysis of advertising impacts.

ABN AMRO Bank, Modelling Analyst

Amsterdam, NL

Aug. 2016 to May 2017

10 months

- Modeled credit risk to determine a provision norm to mitigate the risk of recessions by holding reserves.

Sundio (now known as Sunweb Group), Data Scientist

Rotterdam, NL

July 2016 to July 2016

1 month

- Created a Demand Forecast model for travel bookings.

Skills

Programming: Python, R, MATLAB, Java, SQL, Stan

Python packages and tools: Pandas/Polars, Numpy, Numpyro/JAX, Statsmodels, Pypy, Matplotlib/Seaborn, & many others

Statistics and methodology: Bayesian statistics, Time Series analysis, Regression models, Panel models, Survey design, Classification models, Hierarchical/multi-level models

OS: Ubuntu/Linux, Windows, Mac OS

Other tools: Git, Gitlab, AWS, Docker, LaTeX, Bash

Languages: English (Advanced), Dutch (Native)

Strengths: Problem-solving, creativity, communication skills, organization skills, customer orientation, collaboration

My Personal Projects

Advent of Code: Participating in Advent of Code (2019 to 2023 fully complete)

Various personal coding challenges: Examples include "Solving Sudoku with Z3", "Modeling excess deaths during covid", "Estimation and simulation of a football season"

Interests And Future Skills

Path-finding algorithms and other optimization techniques: Dijkstra, A*, BFS, DFS, Dynamic optimization, etc







Runtime optimization ("running code fast!"): Pypy, Numba, Polars instead of Pandas, etc

Automation: Using GPT/Bard for tasks, auto-scraping websites, Makefiles, etc

Education

PhD	Erasmus School of Economics / Tinbergen Institute , Econometrics	Rotterdam, NL
	• Title of PhD thesis: Essays on forecasting and latent values.	Sept. 2011 to Dec. 2015
MSc	Erasmus School of Economics , Econometrics and Management Science	Rotterdam, NL
	• Cum Laude. Title of MSc thesis: Evaluating the rationality of sales forecasts.	Sept. 2010 to July 2011
BSc	Erasmus School of Economics , Econometrics and Operations Research	Rotterdam, NL
	• Cum Laude. Title of BSc thesis: Content horizons of Dutch election polls. Major: Econometrics. Minor: Highlights of Psychology.	Sept. 2007 to July 2010
VWO	Stedelijk Gymnasium Schiedam , VWO/Gymnasium - NT/NG	Schiedam, NL
	• Cum Laude.	Sept. 2000 to July 2006

Publications

A novel approach to measuring consumer confidence	Sept. 2017
Rene Segers, Philip Hans Franses, Bert de Bruijn DOI: 10.1016/j.ecosta.2016.11.009 	
Benchmarking judgmentally adjusted forecasts	Oct. 2016
Philip Hans Franses, Bert de Bruijn DOI: 10.1002/ijfe.1569 	
Heterogeneous Forecast Adjustment	July 2016
Bert de Bruijn, Philip Hans Franses DOI: 10.1002/for.2433 	
Stochastic levels and duration dependence in US unemployment	Sept. 2015
Bert de Bruijn, Philip Hans Franses DOI: http://hdl.handle.net/1765/78710 	
Analyzing fixed-event forecast revisions	Oct. 2013
Chia-Lin Chang, Bert de Bruijn, Philip Hans Franses, Michael McAleer DOI: 10.1016/j.ijforecast.2013.04.002 	
Forecasting Earnings Forecasts	Jan. 2013
Bert de Bruijn, Philip Hans Franses DOI: http://hdl.handle.net/1765/41126 	
Managing Sales Forecasters	Dec. 2012
Bert de Bruijn, Philip Hans Franses DOI: 10.2139/ssrn.2184281 