Bert de Bruijn

📍 Bonaire, Caribbean Netherlands   in lpdebruijn   ○ debruijn   ⩔ bert.debruijn

Econometrician | Data Scientist | Statistician

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.

Relevant Work Experience

Nielsen Media Research, Lead Data Scientist — Rotterdam, NL — Nov 2021 – Jan 2024

- 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 – Oct 2021

- 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 – Jan 2019

- Built and improved respondent-level models for measuring the effect of media and 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 – May 2017

- 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 – July 2016

- Created a Demand Forecast model for travel bookings.

Private Projects

Intervalues: A Python package for efficient combining of intervals for tracking counts, sets, and more

Advent of Code: Participating in the yearly Advent of Code challenge (2018 to 2023 fully complete)

Various other personal coding projects: 'Solving Sudoku with Z3', 'Modeling excess deaths during Covid in the Netherlands', and others.

Publications

A novel approach to measuring consumer confidence   Sept 2017

Rene Segers, Philip Hans Franses, *Bert de Bruijn*

10.1016/j.ecosta.2016.11.009 (Econometrics and Statistics)

Benchmarking judgmentally adjusted forecasts   Oct 2016

Philip Hans Franses, *Bert de Bruijn*

10.1002/ijfe.1569 (International Journal of Finance and Economics)

Heterogeneous Forecast Adjustment   July 2016

Bert de Bruijn, Philip Hans Franses

10.1002/for.2433 (Journal of Forecasting)

Stochastic levels and duration dependence in US unemployment   Sept 2015

Bert de Bruijn, Philip Hans Franses

(Erasmus University Rotterdam Econometric Institute Report Series)

Analyzing fixed-event forecast revisions   Oct 2013

Chia-Lin Chang, *Bert de Bruijn*, Philip Hans Franses, Michael McAleer

10.1016/j.ijforecast.2013.04.002 (International Journal of Forecasting)

Forecasting Earnings Forecasts   Jan 2013

Bert de Bruijn, Philip Hans Franses

(Tinbergen Institute Discussion Paper Series)

Managing Sales Forecasters   Dec 2012

Bert de Bruijn, Philip Hans Franses

10.2139/ssrn.2184281 (Tinbergen Institute Discussion Paper Series)

Education

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

Skills and Interests

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

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

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

Other tools and tech: Git, Gitlab, AWS, Docker, Linux, Ubuntu, LaTeX, Bash, Z3

Languages: Dutch (Native), English (Fluent), Spanish (Beginner)

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

Path-finding algorithms: Dijkstra, A*, BFS, DFS, Dynamic Optimization

Personal: Podcasts, cooking, walking, sudoku's, learning Spanish