# Christopher Gandrud, Ph.D

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# Work Experience

Empathy is at the core of my leadership style, facilitating focus on impactful projects through understanding customer needs and nurturing team dynamics for enhanced productivity.

### Spotify (2022-present)

#### Acting Director of Data Science (2023-Present)

I lead teams of data scientists responsible for personalizing the Home, Search, and promotions experience on Spotify, which accounts for 75% of consumption for over 500 million users. Key projects include:

- Redefining Impact Measurement: Driving the development of a new framework to redefine and instrument how Spotify tracks and measures the impact of recommendations. This initiative improved the accuracy and relevance of success metrics across key user engagement dimensions and business verticals.
- Enhancing Discovery and Engagement: Drove projects that resulted in substantial increases in user discovery and engagement with new video content formats, contributing to significant growth in overall platform consumption, monetisation, and user retention.

#### Senior Insights Leader (2022-2023)

I guided teams of data scientists and user researchers in developing personalization algorithms and optimizing impression economics, significantly influencing user experience for 400+ million daily users on the Spotify Home.

#### Zalando SE (2017-2022)

#### Director of Economics and Experimentation

I created and led the Zalando economics teams and supporting engineering and product teams. Over 5 years, the teams were responsible for developing algorithmic ad markets, conducting econometric analyses of strategic company initiatives, and advancing the Zalando A/B testing platform.

- Measuring the right things: I led managers of teams of economists, data scientists, engineers, and product managers redeveloping Zalando's customer centric KPI framework. We use econometric analysis to identify what brings long-term value to diverse customers.
- Scaling incremental impact research software and services: Led the development of Zalando's large scale A/B testing platform and broader program to enable teams throughout the company to measure their incremental impact with causal machine learning methods. I guided research into new methods and their application in production.
- Real-time and machine-learned content recommendation system: We built a platform that dramatically expanded Zalando's on-site advertising business, while improving the customer experience by expanding the diversity and quality of on-site fashion content.

### Harvard University Institute for Quantitative Social Science (2017)

#### Research Fellow

With Prof. Gary King, I led a team developing statistical software for academic and industry applications. I also taught courses on data science and data visualisation.

#### City, University of London (2015-2018)

#### Lecturer

I was a Lecturer in international political economy (quantitative methods) in the Department of International Politics and the Q-Step Centre for quantitative social science education.

### Hertie School of Governance (August 2013-June 2017)

#### Post-Doctoral Fellow

I coauthored with Prof. Mark Hallerberg a project examining the political economy of responses to financial crises. We were generously funded by the Deutsche Forschungsgemeinschaft (German National Research Foundation).

I designed and taught a graduate-level course on collaborative data science and supervised masters theses.

### Yonsei University (2012-2013)

Lecturer

Hertie School of Governance (2010–2012)

Research Associate

London School of Economics (2010-2011)

Fellow in Government

London School of Economics/Peking University (August 2011 & 2012)

**Graduate Teaching Assistant** 

London School of Economics (2009-2012)

Graduate Teaching Assistant

### Education

#### London School of Economics (2008-2012)

MRes/PhD Political Science (Quantitative Research Methodology)

Awarded MRes with Distinction

My thesis used signalling games, event history analysis, and case studies to examine how economic policies are made in times of crisis.

- Examiners: Charles Goodhart and Vera E. Troeger
- Supervisors: Cheryl Schonhardt-Bailey and Simon Hix

#### London School of Economics (2005-2006)

MSc Comparative Politics (Research Methodology)

Graduated with Distinction

#### McGill University (2003-2005)

BA (Honours) Political Science & Geography

Graduated with First Class Honours, in the top 10% of the class

### Other Education

Oxford University Spring Summer School (2014)

Bayesian Hierarchical Models for Social Research (taught by Jeff Gill)

#### **Publications**

#### Published Peer Reviewed Articles

- Taking Time (and Space) Seriously: How Scholars Falsely Infer Policy Diffusion from Model Misspecification. With Cody A. Drolc and Laron K. Williams. 2021 *Policy Studies Journal*. 49(2): 484-515.
- The Measurement of Real-Time Perceptions of Financial Stress: Implications for Political Science. With Mark Hallerberg. 2019. *British Journal of Political Science*. 49(4): 1577-1589.
- The Reproducibility of Governance Indicators: Assessing Current Practices and Looking Forward. In *Governance Indicators: Approaches, Progress, Promises.* 5th edition. 2018. Oxford: University Press.
- Explaining Variation and Change in Supervisory Confidentiality in the European Union. With Mark Hallerberg. 2018. West European Politics. 41(4): 1025-1048.
- Financial Regulatory Transparency, International Institutions, and Sovereign Borrowing Costs. With Mark Copelovitch and Mark Hallerberg. 2018. *International Studies Quarterly*. 62(1): 23-41.
- Simulating Probabilistic Long-Term Effects in Models with Temporal Dependence. With Laron K. Williams. 2017. *R Journal.* 9(2): 401-408.
- Interpreting Fiscal Accounting Rules in the European Union. With Mark Hallerberg. 2017. *Journal of European Public Policy*. 24(6): 832-851.
- Information and Financial Crisis Policy Making. With Míchéal O'Keeffe. 2017. *Journal of European Public Policy*. 24(3): 386-405.
- Statistical Agencies and Responses to Financial Crises: Eurostat, Bad Banks, and the ESM. With Mark Hallerberg. 2016. West European Politics. 39(3): 545-564.
- Two Sword Lengths Apart: Credible commitment problems and physical violence in democratic national legislatures. 2016. *Journal of Peace Research*. 53(1): 130-145.
  - Interviewed about research on CBC Radio 1.
  - Applied to understanding violence in the Turkish Parliament in Political Violence @ a Glance.
  - Applied to understanding violence in the Ukrainian Parliament in VoxUkraine.

- Write up on the Monkey Cage with Emily Beaulieu.
- Does Banking Union Worsen the EU's Democratic Deficit? The need for greater supervisory data transparency. With Mark Hallerberg. 2015. *Journal of Common Market Studies*. 53(4):769-785.
  - Data set updated through 2015 at Bruegel.
- When All is Said and Done: Updating 'Elections, Special Interests, and Financial Crisis'. With Mark Hallerberg. 2015. Research and Politics. 2(3):1-9.
- Inflated Expectations: How Government Partisanship Shapes Bureaucrats' Inflation Forecasts. With Cassandra Grafström. 2015. *Political Science Research and Methods*. 3(2):253-380.
  - Write up on the Monkey Cage.
- simPH: An R Package for Illustrating Estimates from Cox Proportional Hazard Models Including for Interactive and Nonlinear Effects. 2015. *Journal of Statistical Software*. 65(3):1-20.
- Letting German Banks Fail: Federalism and decisions to save troubled banks. With Sahil Deo, Christian Franz, and Mark Hallerberg. 2015 Politische Vierteljahresschrift (PVS). 56(2): 159-181.
  - Application of the theoretical framework to Austria published on the World Economic Forum.
- Competing Risks and the Mechanisms of Deposit Insurance Governance Convergence. 2014. *International Political Science Review*. 35(2):197-217.
- The Diffusion of Financial Supervisory Governance Ideas. 2013. Review of International Political Economy. 20(4):881-916.

#### Peer Reviewed Book

- Reproducible Research with R and RStudio. 2020. Third Edition. Chapman & Hall/CRC Press division of the Taylor & Francis Group.
  - First edition reviewed in *The American Statistician*. 2014. 68(4):313-314.

#### Other Published Academic/Policy Articles

- How Not to Create Zombie Banks: lessons for Italy from Japan. with Mark Hallerberg. *Bruegel Policy Contribution*. March 2017.
- Visualize Dynamic Simulations of Autoregressive Relationships in R. With Laron K Williams and Guy D Whitten. *The Political Methodologist.* 23(2): 6-10.
- Financial Regulatory Transparency: New data and implications for EU policy. With Mark Copelovitch and Mark Hallerberg. *Bruegel Policy Contribution*. December 2015.
- Corrections and Refinements to the Database of Political Institutions' **yrcurnt** Election Timing Variable. 2015. *The Political Methodologist*. 22(2): 2-4.
- Bad Banks in the EU: The impact of Eurostat rules. With Mark Hallerberg. *Bruegel Working Paper*. 2014/15.
- Supervisory Transparency in the European Banking Union. With Mark Hallerberg. *Bruegel Policy Contribution*. January 2014.
- Who Decides?: Resolving Failed Banks in a European Framework. With Mark Hallerberg. *Bruegel Policy Contribution*. November 2013.
  - Published in Polish as "Kto decyduje? Mechanizm Restrukturyzacji i uporzadkowanej likwidacji banków w eropejskich ramach". 2014. Nowa Europa. 1(17): 114-141.

• GitHub: A tool for Social Data Set Development and Verification in the Cloud. 2013. *The Political Methodologist*. 20(2):2-7.

# **Teaching**

### RTG DYNAMICS (Humboldt/Hertie)

• Programming Methods for Data Retrieval & Management

### Harvard University (Short courses)

- Developing Statistical Software Using IQSS Best Practices
- Tools for Reproducible Data Science
- Dynamic Web Documents with Dashboards and Shiny (with Dustin Tingley)

### City University London (Lecturer)

- IP2038: Data Analysis in the Real-World
- SG1021: Lies, Damn Lies, and Statistics
- SG1022: Producing Social Data

#### Hertie School of Governance (Guest Lecturer)

• MPP-E1180: Introduction to Collaborative Social Science Data Analysis

#### Yonsei University (Lecturer)

- INT3042: Introduction to Social Science Data Analysis
- NT4021: The Global Monetary & Financial System
- EIC3120: International Political Economy
- INT3041: War, Peacebuilding, and Reconstruction
- INT3040: Understanding Global Affairs

#### London School of Economics (Fellow or Teaching Assistant)

- MI452: Applied Regression Analysis
- MI451: Introduction to Quantitative Analysis
- GV101: Introduction to Comparative Politics
- FN208: Post-Crisis: What Next for the International Financial and Monetary Systems? (LSE-Peking University Summer School)

# Conference Presentations/Invited Talks

- Siteman Cancer Centre Biostatistics, Washington University School of Medicine, St. Louis (2022)
- PyData Berlin (2018)
- American Political Science Association Annual Conference (2012–2017)
- European Political Science Association Annual Conference (2011/2014/2016/2017)
- LSE Systemic Risk Centre Conference (2016)
- School of Politics and International Relations Research Seminar, University of Kent (2016)
- International Political Economy Society Conference (2013/2015/2016)
- Politics of Secrecy Workshop, University of Munich (2016)
- Université de Montréal political science talk.
- Bank of Iceland: Capital Flows, Systemic Risk, and Policy Responses Conference (2016)
- Freie Universität Berlin: Financial Crisis Workshop (2016)
- University of Mannheim: Political Forecasting (2015)
- Texas A & M University: Political Budgeting Across Europe (2015)
- Open Energy Modeling Workshop (2015)
- Political Economy of International Organizations (2015)
- Princeton University: Monetary Policy and Central Banking: Historical analysis and contemporary approaches (2015)
- Banking Regulation and Supervision and the Great Leap Forward in European Integration, Brussels (2014)
- University of Mannheim: Textual Analysis in the Social Sciences (2014)
- YoungDNB Seminar on Transparency, Bank of the Netherlands (2014)
- csv,Conf (2014)
- Midwestern Political Science Association Annual Conference (2012/2014)
- CESifo Area Conference on Macro, Money, and International Finance (2014)
- International Studies Association Annual Convention (2012/2013)
- Waseda University GLOPE II Conference on Political Institutions (2012)
- Korean Political Science Association World Congress (2011)
- ECPR Regulation in the Age of Crisis (2010)

### Other Professional Activities

#### Software

- spatialWeights: Calculate spatial weights for time-series cross-sectional data and report spatial clustering test statistics
- coreSim: Core functionality for simulating quantities of interest from generalised linear models.
- DataCombine: R tools for making it easier to combine and clean data sets.
- dpmr: Data package manager for R (with the Open Knowledge Foundation).
- dynsim: An R implementation of dynamic simulations of autoregressive relationships (with Laron K Williams and Guy D Whitten).
- imfr: R package for interacting with the International Monetary Fund's RESTful JSON API.
- networkD3: Tools for creating D3 JavaScript network graphs from R. With JJ Allaire and RStudio.
- plotMElm: Plot interaction marginal effects, including with false discovery rate confidence intervals, from linear models.
- pltesim: Simulate probabilistic long-term effects in models with temporal dependence (with Laron K Williams).
- repmis: A collection of miscellaneous tools for reproducible research with R.
- simPH: Tools for simulating and graphing quantities of interest estimated using Cox Proportional Hazards models.

#### Reviewer

American Political Science Review, Business and Politics, Chapman & Hall/CRC Press, Economics and Politics, International Political Science Review, International Studies Perspectives, International Studies Quarterly, Journal of Common Market Studies, Journal of Economic Policy Reform, Journal of Statistical Software, Managerial Finance, Manning Publications Co., Packt Publishing, Political Science Research and Methods, Political Research Quarterly, Regulation and Governance, Review of International Political Economy, Routledge, Sage Publishing, Scientific Data, West European Politics.

#### Professional Memberships

I am or have been a member of the Foundation for Open Access Research, American Political Science Association, the European Political Science Association, and the Midwest Political Science Association, rOpenGov.

# External Funding/Awards

- European Research Council Horizon 2020 (1.5 million Euros, Ronen Palan principal investigator)
- LSE IR Department Seed Grant (with Jeff Chwieroth)
- Project grant (270,000 Euros) from the Deutsche Forschungsgemeinschaft (with Mark Hallerberg)
- LSE Class Teacher Award, Quantitative Methodology (2009-2010)
- LSE Government Department PhD Studentship (2008-2012)
- Penn State University President's Award
- Canadian Tower Scholarship for the Environment

### Other Skills

#### IT

I am a highly skilled user of AWS, Bash, CSS, Git/GitHub, HTML, JavaScript, Julia, Jupyter, RMarkdown, LaTeX, Linux, SQL, Python, R, Shiny web apps, SPSS, Stan, and Stata.

### Languages

B1 German proficiency. I have also studied Korean, Spanish, and French.

### References

#### Prof. Gary King

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#### Prof. Mark Hallerberg

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