

Dirk Antonczyk, PhD

Seattle, WA

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Profile: Twelve years of private sector experience (consulting/tech) as an Economist, post PhD. Currently managing a science/engineering team for Amazon Advertising, building machine learning models and tools that automate advertising campaign optimization. Prior to joining Amazon, held roles in compliance analytics and economic and statistical consulting. PhD in Economics from the University of Freiburg, MSc in Economics from Humboldt-University Berlin, and MSc in Statistics from ENSAE, Paris. Published in multiple peer-reviewed economic journals.

EXPERIENCE

Amazon

Seattle, WA

Sr. Manager, Economist (promoted from Manager, Economist in October 2021)

July 2018- present

- Lead a science and engineering team building causal machine learning (ML) models, A/B testing infrastructure, and Recommender System products to automate campaign creation and optimization for Amazon's advertising customers. In 2022, the team covered 1M+ advertisers and shared 10M+ unique recommendations, contributing \$500M in advertising revenue.
- Core responsibilities include raising scientific bar of ML/economic models and analyses, setting strategic plans for the team and larger organization, team development and mentoring (hiring, promotion, performance management, conducted 200+ interviews as 'bar-raiser'), driving collaboration with partner teams (product, engineering, other science teams) to deliver products that improve customer KPIs and contribute to Amazon's sales goals.
- Previously led the AWS HR Econ and Science team, driving a wide variety of strategic programs and projects that influence business decisions across AWS, including time-series forecasting for workforce planning, causal analysis to optimize team compositions, and scientific evaluation of 20+ distinct training programs and hiring channels.

PricewaterhouseCoopers LLP

New York, NY

Director and Manager, Advisory Services – Modeling and Analytics

June 2015 – June 2018

- Led consulting projects for international and national banks. Managed teams developing and applying experimental design approaches and subsequent statistical and econometric analysis frameworks to enhance and conduct validations of Anti-Money Laundering (AML) and Anti-Fraud customer risk rating models.
- Directed numerous AML and OFAC model validation and calibration projects. Developed statistical sampling plans for regulatory compliance purposes and designed and tested scenarios and thresholds for suspicious activity analyses to meet OCC 2011-12/FRB SR11-7 regulatory expectations.

Ernst & Young LLP

New York, NY

Manager, Advisory Services – Modeling and Analytics

January 2015 – May 2015

- Managed several AML projects focused on establishing statistically sound customer risk rating models.

Deloitte LLP

New York, NY

Manager and Senior Associate – Economic and Statistical Consulting

October 2011 – January 2015

- Supported testifying experts to address class certification, intellectual property, liability and damages issues in legal disputes and government investigations.

Albert-Ludwigs-University Freiburg

Freiburg, Germany

Research and Teaching Assistant

September 2007 – September 2011

- Classes in Statistics and Econometrics, conducted labor market research evaluation of federal training programs.

EDUCATION

Albert-Ludwigs-University Freiburg

September 2007 – September 2011

PhD in Economics (Dr. rer. pol.)

ENSAE ParisTech, Paris

September 2007 – September 2011

MSc in Statistics (Diplôme de Statisticien Economiste)

Humboldt-University Berlin

October 2002 – September 2007

MSc in Statistics (Diplom Volkswirt)

PUBLICATIONS

- “A Nonparametric Approach to Identify Age, Period, and Cohort Effects”, Journal of Statistical Planning and Inference, 2020, Vol. 204, pp.96-115, (with B. Fitzenberger, E. Mammen, and K. Yu)
- “Polarization and Rising Wage Inequality: Comparing the U.S. and Germany”, Econometrics, 2018, Vol.6(20), (with T. DeLeire and B. Fitzenberger)
- “The Aftermath of Reunification: Sectoral Transition, Gender, and Rising Wage Inequality in East Germany”, Economics of Transition, 2013, Vol.21(1), pp.73-110, (with K. Kohn)
- “Rising Wage Inequality, the Decline of Collective Bargaining, and the Gender Wage Gap”, Labour Economics, 2010, Vol.17(5), pp.835-847, (with B. Fitzenberger and K. Sommerfeld)
- “Can a Task-Based Approach Explain the Recent Changes in the German Wage Structure?” Journal of Economics and Statistics, 2009, Vol.229(2+3), pp.214-238, (with B. Fitzenberger and U. Leuschner)
- “Using Social Norms to Estimate the Effect of Collective Bargaining on the Wage Structure”, mimeo, (June 2014)

PROGRAMMING

R, Python, Stata, SAS, SQL, Matlab

LANGUAGES

German, English, French

Personal Information: Citizenship and Immigration Status: German, permanent resident (green card holder)