

Lara Vomfell

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My research leverages statistical innovations to investigate policy-relevant decision problems in the social sciences.

Education

Behavioural Science, PhD

UNIVERSITY OF WARWICK

Warwick, UK

10/2017 - 09/2021

- Bridges Leverhulme programme
- Thesis: "Spatial and behavioral patterns in police officer decisions"
- Supervisors: Neil Stewart, Nattavudh Powdthavee and Julia Brettschneider

Economics, MSc

HUMBOLDT UNIVERSITY OF BERLIN

Berlin, Germany

10/2015 - 09/2017

- GPA of 1.7 (top 5%); 120 + 32 ECTS
- Thesis: "Improving Crime Forecasts with Taxi and Twitter Data"; grade: 1.0
- Semester abroad at Nova University of Lisbon (09 - 12/2016)

Politics and Economics, BA

UNIVERSITY OF MÜNSTER

Münster, Germany

10/2011 - 02/2015

- GPA of 1.7 (top 5%); 180 + 26 ECTS
- Thesis: "Surveying Data Marketplaces: Trends and Developments"; grade: 1.0
- Semester abroad at Federal University of Santa Catarina, Brazil (07/2013 - 02/2014)

Allgemeine Hochschulreife / A-levels

MUSTERSCHULE

Frankfurt, Germany

06/2011

- GPA of 1.2 (top 3%), graduation with distinction
- Year abroad at Uttaradit Daruni, Thailand (07/2007-02/2008)

Publications

Officer bias in stop and search, but not as we know it

Submitted

VOMFELL/STEWART

2019

- Searches by individual officers are entirely unrelated to the ethnic composition of crime as policed by the officer
- Ethnic bias can at best explain only a fraction of officer behavior
- Instead, the ethnic composition of an officer's team influences search behavior

Improving Crime Count Forecasts with Twitter and Taxi Data

Decision Support Systems, 113, 73-85

VOMFELL/HÄRDLE/LESSMANN

2018

- Using spatial and machine learning models, predictions for New York City crime over 26 weeks are enhanced
- Property crime depends on local opportunities as captured by new data sources
- Violent crime does not emerge from short-run human dynamics

A Classification Framework for Data Marketplaces

Vietnam Journal of Computer Science

3.3, 137-143

STAHL/SCHOMM/VOSSEN/VOMFELL

2016

- Understanding pricing mechanisms of data
- Development of a scheme to group emerging data marketplaces

Marketplaces for Digital Data: Quo Vadis?

ERCIS Working Papers, Vol. 24

VOMFELL/STAHL/SCHOMM/VOSSEN

2015

- Analysis of 72 electronic marketplaces where data is sold
- Identification of two segmented markets

Work in progress

- Modeling officers' stop and search decisions with point processes
- Improving measures of stop and search disparities
- Is crime deterrence spatio-temporally varying? (with Julia Brettschneider)
- Outlier-robust inference in cognitive science (with Jeremias Knoblauch)

Experience

OECD

Berlin, Germany

INTERNSHIP

07/2015 - 10/2015

- Independent research and editing of the OECD Statistic of the Day
- Daily exchange with OECD statisticians and communication to journalists

European Research Center for Information Systems

Münster, Germany

RESEARCH ASSISTANT

05/2014 - 10/2015

- Research and data analysis on the acceptance of electric mobility

Chair of Computer Science

Münster, Germany

RESEARCH ASSISTANT

05/2015 - 08/2015

- Independent published research on data marketplaces

Commerzbank

Frankfurt, Germany

INTERNSHIP

02 - 04/2014

- Financial analysis at Germany's second largest bank

Chair of Political Economy

Münster, Germany

RESEARCH ASSISTANT

01 - 08/2013

- Data analysis on income inequality data

Selected Presentations and Seminars

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|---------|---|------------------------|
| 11/2019 | SJDM , Oral presentation | Montréal, Canada |
| 09/2019 | IAREP/SABE , Oral presentation | Dublin, Ireland |
| 08/2019 | SPUDM , Oral presentation | Amsterdam, Netherlands |
| 05/2019 | Chicago Booth , Invited Seminar | Chicago, US |
| 01/2019 | Stop and Search Commission, West Midlands PCC , Invited Talk | Birmingham, UK |
| 08/2018 | Privatissimum Statistik , Invited Seminar | Berlin, Germany |

Fellowships and Awards

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|-------------|--|
| 2017 - 2021 | Bridges Leverhulme , Doctoral Scholarship |
| 08/2018 | Visiting Researcher , at the High Dimensional Nonstationary Time Series group at HU Berlin |
| 2018, 2019 | Bank of England , Outstanding contribution to teaching 'Big Data Analytics' for two consecutive years |
| 2016 | Data Mining Cup , 10th to 49th place |
| 2015 | Thesis Award , best bachelor's thesis in computer science awarded by zeb |
| 2013 | PROMOS Scholarship , international mobility scholarship |

Skills

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| Programming | R (advanced skills in statistical computing, algorithm design, computational optimisation, and parallel programming), Python (basic skills) |
| Languages | German (native), English (fluent), Portuguese (fluent), French (basic) |

Extracurricular Activities

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|----------------|---|
| Service | Bridges/CAGE Summer School in Behavioural Economics (2019); Early Career Research in Behavioral Science in Warwick (2018-); Women in Behavioural Science (2017) |
| Hobbies | Thai Boxing, hiking, sewing, knitting and pattern drafting |