

# Lara Vomfell

77 Newcombe Road, Coventry CV5 6NH, United Kingdom

✉ L.Vomfell@warwick.ac.uk | 🏠 laravomfell.github.io | 📷 laravomfell

*My research leverages statistical methodology to investigate long-standing issues in the social sciences.*

## Education

### Behavioural Science, PhD

UNIVERSITY OF WARWICK

Warwick, UK

10/2017 - 09/2021

- Crime displacement and deterrent effects of stop and search
- Evidence of ethnic bias in stop and search events and outcomes

### 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

VOMFELL/STEWART

Submitted

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

VOMFELL/HÄRDLE/LESSMANN

Decision Support Systems, 113, 73–85

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

STAHL/SCHOMM/VOSSEN/VOMFELL

Vietnam Journal of Computer Science  
3.3, 137–143

2016

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

### Marketplaces for Digital Data: Quo Vadis?

VOMFELL/STAHL/SCHOMM/VOSSEN

ERCIS Working Papers, Vol. 24

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

---

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

## Fellowships and Awards

---

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

## Skills

---

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

## Extracurricular Activities

---

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