

Juan Carlos Medina Serrano

DATA SCIENTIST

Education

Doctoral Candidate in Computer Science: Political Data Science

TECHNISCHE UNIVERSITÄT MÜNCHEN

Supervisor: Prof. Dr. Simon Hegelich

Munich, DE

Nov 2017 - PRESENT

Master of Science in Data Engineering and Analytics

TECHNISCHE UNIVERSITÄT MÜNCHEN

Specialization: Big Data

Munich, DE

Aug 2016 - Jun 2018

Master of Science with honors in Computational Science

TECHNISCHE UNIVERSITÄT MÜNCHEN

Participant of the BGCE Honors Program

Munich, DE

Oct 2014 - Jul 2017

Bachelor of Science in Engineering Physics

TECNOLÓGICO DE MONTERREY (ITESM), CAMPUS MONTERREY

• Ruhr Universität Bochum — Semester Abroad Fall 2012

Monterrey, MX

Oct 2009 - May 2014

Skills

Languages Python, R, Scala, SQL, Java, C++, Matlab

Frameworks Elasticsearch, Spark, Tensorflow, Hive, Gephi, GraphX

Experience

Octimine Technologies

DATA SCIENTIST INTERN

- Performed administration tasks of an Elasticsearch cluster. Migrated a database of over 100 million documents from MySQL to Elasticsearch.
- Employed text mining algorithms on patent data.

Munich, DE

Feb 2017 - Nov 2017

BMW AG

DATA ENGINEERING INTERN

- Implemented a distributed framework with Spark in Scala, which accelerated the current trace analysis tool by a factor of 100.
- Master thesis project, final grade 1.0/1.0.

Munich, DE

Jun 2016 - Dec 2016

Project with Siemens AG

SOFTWARE ENGINEERING TEAM PROJECT

- Implemented a software tool in Python and C++ for topology optimization.
- The tool is Open-source and available under <https://github.com/FMenhorn/BGCEGit>

Munich, DE

April 2015 - March 2016

Bosch

DATA ANALYST INTERN

- Analyzed data coming from measuring the magnetic properties of materials.
- Operated magnetic equipment for the characterization of magnetic materials.

Stuttgart, DE

March 2013 - July 2013

Projects

Political Dashboard

- A website that monitors social media content related to German politics.
- <http://political-dashboard.de/>

The Data Path

- A newly created YouTube channel that shows the way into a data career.
- <https://www.youtube.com/channel/UCOXrpXZPOcfPtXF-1R5Uhdw>

Publications

- Papakyriakopoulos, O., Hegelich, S., Shahrezaye, M., Medina Serrano, J.C. (2018) *Social media and microtargeting: Political data processing and the consequences for Germany*, Big Data & Society.
- Medina Serrano, J.C., Hegelich, S., Shahrezaye, M., Papakyriakopoulos, O. (2018) *Social Media Report: The 2017 German Federal Elections*, TUM University Press
- Thieltges, A., Papakyriakopoulos, O., Medina Serrano, J.C., Hegelich, S. (2018) *Effects of Social Bots in the Iran-Debate on Twitter*, arXiv:1805.10105
- Papakyriakopoulos, O., Shahrezaye, M., Thieltges, A., Medina Serrano, J.C., Hegelich, S. (2017) *Social Media und Microtargeting in Deutschland*, Informatik Spektrum 40: 327

Media Interviews

- *Dark Social: Einschränkungen bei WhatsApp*, Rundschau Magazin, BR, February 2019
- *Social Bots – Meinungsrobotern auf der Spur*, hr info, Hessischer Rundfunk, December 2018
- *German far right far ahead in use of social media*, Reuters, September 2018
- *#DeleteFacebook. Ist das Vertrauen jetzt verspielt?* Medien 360G, March 2018
- *Manipulation durch Facebook?*, KORTX, afk M94.5, January 2018
- *German elections: Who are the AfD?*, The Stream, Al Jazeera, September 2017
- *Manipulated Twitter Accounts*, radioWelt, Bayern2, September 2017
- *Wahlkampf im Internet: Wie kann ich Manipulationen erkennen?*, 17:30, SAT.1 Bayern, September 2017

Invited Talks and Conferences

- *Social Media and Populism*, LSE 2019 Forum, London School of Economics, March 2019
- *The rise of the AfD: A social media analysis*, The Internet, Policy & Politics Conference, Oxford University, September 2018
- *Disinformation Mechanisms in the 2017 German Elections Disinformation*, Online Falsehoods and Fake News Workshop, Singapore, July 2018
- *Bots, trolls and social bots: The good, the bad and the ugly*, EUPRIO, Sevilla, June 2018
- *German Elections and social media*, Transatlantic Cybersecurity Partnership Workshop, Munich, January 2018