

# Svitlana Vakulenko

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Postdoc in Data Science for Language Understanding and Search  
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svakulenk0.github.io

## RESEARCH INTERESTS

Conversational Search, Exploratory Search, Question Answering

## EDUCATION

<b>Vienna University of Technology</b>	<b>October 2015 – November 2019</b>
PhD in Computer Science (advisors: Prof. Axel Polleres, Prof. Maarten de Rijke)	
<b>University of Tartu</b>	<b>September 2009 – June 2011</b>
MSc in Software Engineering (advisor: Prof. Marlon Dumas)	
<b>Kyiv National Economic University</b>	<b>September 2005 – June 2009</b>
BSc in Business Informatics	

## RESEARCH POSITIONS

<b>University of Amsterdam</b>	<b>October 2019 – October 2021</b>
Postdoc researcher in the Information and Language Processing Systems (ILPS) group	
<b>Apple Inc.</b>	<b>June 2019 – September 2019</b>
Research intern in the Siri Understanding team	
<b>Vienna University of Economics and Business</b>	<b>January 2017 – November 2019</b>
Project staff member in the Institute for Information Business	
<b>MODUL University</b>	<b>September 2014 – December 2016</b>
Researcher in the Department of New Media Technology	
<b>University of Liechtenstein</b>	<b>September 2013 – August 2014</b>
Research Assistant in the Institute of Information Systems	
<b>Karlsruhe Institute of Technology</b>	<b>November 2011 – March 2012</b>
Research Associate in the Institute of Applied Informatics and Formal Description Methods	

## RESEARCH PROJECTS

AT FFG <b>CommuniData</b> <code>communidata.at</code>	<b>January 2017 – April 2019</b>
Deliverable 3.1 Dataset Discovery Plugin	
EU Horizon 2020 <b>InVID</b> <code>invid-project.eu</code>	<b>May 2016 – December 2016</b>
Deliverable 2.1 Social Media Filtering and Extraction	

EU FP7 **PHEME** [pHEME.eu](http://pHEME.eu)

**August 2014 – December 2016**

Deliverable 3.2 Algorithms for Implicit Information Diffusion Networks Across Media

EU FP7 **LiquidPublication** [liquidpub.org](http://liquidpub.org)

**September 2010 – May 2011**

Predicting conference ranking from bibliometric indicators

#### RESEARCH VISITS

**Stanford University**

**June 2018**

Prof. Axel Polleres

**Federal University of the State of Rio de Janeiro**

**April 2018 – May 2018**

Prof. Kate Revoredo

**University of Amsterdam**

**July 2017 – September 2017**

Prof. Evangelos Kanoulas

#### REFEREED PUBLICATIONS

I have published 17 peer-reviewed papers, with 101 citations, and an h-index of 6 (Google Scholar, November 2019)

1. **Svitlana Vakulenko**. Knowledge-based Conversational Search. PhD thesis. Technical University of Vienna. 2019. (Supervised by Prof. Axel Polleres and Prof. Maarten de Rijke)
2. **Svitlana Vakulenko**, Javier D. Fernandez, Axel Polleres, Maarten de Rijke and Michael Cochez. Message Passing for Complex Question Answering over Knowledge Graphs. Proceedings of the International Conference on Information and Knowledge Management (CIKM). 2019.
3. Kathrin Figl, Samuel Kießling, Christiane Rank, **Svitlana Vakulenko**. The Effect of Fake News Flags on the Believability of Social Media Posts. Proceedings of the International Conference on Information Systems (ICIS). 2019.
4. **Svitlana Vakulenko**, Vadim Savenkov and Maarten de Rijke. Conversational browsing: Dialog-based Access to Structured Information Sources. (Under review)
5. Sophia Keyner, Vadim Savenkov and **Svitlana Vakulenko**. Open Data Chatbot. Proceedings of the Extended Semantic Web Conference (ESWC). 2019.
6. **Svitlana Vakulenko**, Kate Revoredo, Claudio Di Ciccio and Maarten de Rijke. QRFA: A Data-Driven Model of Information Seeking Dialogues. Proceedings of the European Conference on Information Retrieval (ECIR). 2019. *Best paper (User track)*.
7. **Svitlana Vakulenko**, Maarten de Rijke, Michael Cochez, Vadim Savenkov and Axel Polleres. Measuring Semantic Coherence of a Conversation. Proceedings of the International Semantic Web Conference (ISWC). 2018. *Spotlight paper*.
8. **Svitlana Vakulenko**, Ilya Markov and Maarten de Rijke. Conversational Exploratory Search via Interactive Storytelling. Proceedings of the Workshop on Search-Oriented Conversational AI (SCAI@ICTIR). 2017.
9. **Svitlana Vakulenko** and Vadim Savenkov. TableQA: Question Answering on Tabular Data. Proceedings of SEMANTiCS Conference. 2017. *Best poster and demo nomination*.
10. Sebastian Neumaier, Vadim Savenkov and **Svitlana Vakulenko**. Talking Open Data. Proceedings of the Extended Semantic Web Conference (ESWC). 2017.
11. **Svitlana Vakulenko**, Lyndon Nixon, and Mihai Lupu. Character-based Neural Embeddings for Tweet Clustering. Proceedings of the Workshop on Natural Language Processing for Social Media (SocialNLP@EACL). 2017.

12. Albert Weichselbraun, Stefan Gindl, Fabian Fischer, **Svitlana Vakulenko**, and Arno Scharl. Aspect-based extraction and analysis of affective knowledge from social media streams. In IEEE Intelligent Systems. 2017.
13. **Svitlana Vakulenko**, Albert Weichselbraun, and Arno Scharl. Detection of valid sentiment-target pairs in online product reviews and news media articles. Proceedings of the IEEE/WIC/ACM International Conference on Web Intelligence (WI). 2016.
14. **Svitlana Vakulenko**, Max Göbel, Arno Scharl and Lyndon Nixon. Know which Way the Wind Blows: Visualising the Propagation of News on the Web. Proceedings of the Workshop on Recent Trends in News Information Retrieval (NewsIR@ECIR). 2016.
15. Gregory Katsios, **Svitlana Vakulenko**, Anastasia Krithara and Georgios Paliouras. Towards Open Domain Event Extraction from Twitter: REVEALing Entity Relations. Proceedings of the Workshop on Detection, Representation, and Exploitation of Events in the Semantic Web (DERIVE@ESWC). 2015.
16. **Svitlana Vakulenko**, Oliver Müller, Jan vom Brocke. Enriching iTunes App Store Categories via Topic Modeling. Proceedings of the 35th International Conference on Information Systems (ICIS). 2014.
17. Nadine Reuter, **Svitlana Vakulenko**, Jan vom Brocke, Stefan Debortoli, Oliver Müller. Identifying the Role of Information Systems in Achieving Energy-Related Environmental Sustainability using Text Mining. Proceedings of the European Conference on Information Systems (ECIS). 2014.
18. Andrea Herbst, Alexander Simons, Jan vom Brocke, Oliver Müller, Stefan Debortoli, **Svitlana Vakulenko**. Identifying and characterizing topics in enterprise content management: a latent semantic analysis of vendor case studies. Proceedings of the European Conference on Information Systems (ECIS). 2014.
19. Peep Küngas, Siim Karus, **Svitlana Vakulenko**, Marlon Dumas, Cristhian Parra, Fabio Casati. Reverse-engineering conference rankings: what does it take to make a reputable conference? Scientometrics. 2013.
20. **Svitlana Vakulenko**. Extraction of Process Models from Business Process Descriptions. Master thesis. University of Tartu. 2011. (Supervised by Prof. Marlon Dumas)

#### TEACHING

- Lecturer of the “Principles of Software Programming” BSc program-curriculum course, Vienna University of Economics and Business, Winter Semester 2017
- Lecturer of the “Introduction to Programming” MSc extra-curriculum course, University of Liechtenstein, Summer Semester 2014

#### SUPERVISION

##### 2019

- Sophia Keyner BSc, Open Data Chatbot
- Yoan Bachev MSc, Social Media News Chatbot
- Matthew Minson MSc, Deep Learning Models for Question Answering

##### 2018

- Paul Rudolf Zahrl BSc, Real-time Job Recommendations from Twitter
- Christiane Rank BSc, Social Media and the Future of News: Empirical Study
- Eric Bruch MSc, Open Data Gamification: Quizz Generator

##### 2017

- Alexander Meisl BSc, Open Data for Social Science: Red Cross Use Case
- Donatella Novakovic BSc, Semantic Literature Review on Rumour Detection
- Amar Tauqeer MSc, Visualizing Geo-located Open Data

## COMMUNITY SERVICE

### 2019

- Program Committee member of Reproducibility Track at the International Semantic Web Conference (ISWC 2019)
- Program Committee member at the Conference of the North American Chapter of the Association for Computational Linguistics (NAACL 2019).
- Participant of the Dagstuhl Seminar on Conversational Search.
- Reviewer for the Automated Knowledge Base Construction (AKBC 2019) conference, International Conference on Information Systems (ICIS 2019), Transactions on Information Systems (TOIS) Journal, Knowledge and Information Systems (KAIS) Journal.

### 2018

- Scientific Committee member at the Language Resources and Evaluation Conference (LREC 2018)
- Jury member at Open Minds Award
- Reviewer for the Semantic Web Journal (SWJ), Knowledge and Information Systems (KAIS) Journal

### 2017

- Co-organizer of Django Girls Vienna workshop
- Jury member at Open Minds Award
- Reviewer for the Journal of Computer Science and Technology (JCST)

### 2016

- Reviewer for the International Conference on Computational Linguistics (COLING 2016), ACM Web Science (WebSci 2016), Medal 2016

### 2015

- Reviewer for the European Conference on Information Systems (ECIS 2015), International Conference on Wirtschaftsinformatik (WI 2015)

## TALKS

<b>Measuring Semantic Coherence of a Conversation</b>	6 June 2018
Stanford Center for Biomedical Informatics Research (BMIR), USA	
<b>Conversation Mining: Process Mining for Conversational Data</b>	24 April 2018
Federal University of the State of Rio de Janeiro (UNIRIO), Brazil	
<b>Semantic Coherence for Conversational Browsing of a Knowledge Graph</b>	31 January 2018
University of Bonn, Germany	
<b>CommuniData: project report</b>	1 December 2017
GovCamp Vienna, Vienna, Austria	
<b>Conversational Exploratory Search via Interactive Storytelling</b>	5 September 2017
University of Amsterdam, Netherlands	
<b>Memory Networks for Question Answering on Tabular Data</b>	7 June 2017
Grammarly Meetup, Kyiv, Ukraine	

#### SUMMER SCHOOLS

**IRSS**, Athens, Greece

**July 2014**

International Research-Centered Summer School in Cognitive Systems  
and Interactive Robotics, Data and Content Analysis

**BaSoTI**, Kaunas, Lithuania

**August 2010**

International school focused on advances in telecommunication  
and information technologies

#### HONORS AND AWARDS

- Student grant for attending the European Conference on Information Retrieval (ECIR). 2019
- Travel grant from the Austrian Research Association funding the research visit at Stanford. 2018
- Travel grant for attending the Workshop on Search-Oriented Conversational AI (SCAI). 2017
- Stipend for attending the IS Womens Network Workshop: “Advancing Women In IS”. 2014
- Scholarship for attending the Research-Centered Summer School at NCSR Demokritos. 2014
- Scholarship for attending the Graduate School of Computer Science at Saarland University. 2012
- Scholarship from the Estonian Ministry of Foreign Affairs supporting my Master’s studies. 2010-2011
- Scholarship for attending Baltic Summer School at Kaunas University of Technology. 2010
- EU Eastern Partnership scholarship from the Open Estonia Foundation. 2010
- Scholarship from the Estonian Ministry of Foreign Affairs supporting my Master’s studies. 2009-2010

#### OPEN-SOURCE SOFTWARE

Most of my research projects, as well as studying and teaching materials are open-source. I authored 63 public software repositories on Github ([github.com/svakulenk0](https://github.com/svakulenk0)) and made 2,019 contributions in the last year (March 2019)

#### TECHNICAL SKILLS

Programming languages: Python, JavaScript, Java

Machine learning: PyTorch, Tensorflow, Keras

Databases: SQL, NoSQL, SPARQL

Other: Git, LaTeX

#### LANGUAGES

Russian and Ukrainian (Native), English (Professional), German (Advanced), Spanish (Basic)