Philipp Singer

Curriculum Vitæ

Vienna
+43 (0670) 6048388
✉ *me@philippsinger.com*
⌂ *www.philippsinger.com*

Country of Citizenship	Austria
Date of Birth	1988/01/06
Website	www.philippsinger.com
Portfolio	kaggle.com/philippsinger, github.com/psinger
Competence areas	Data Science, Machine Learning, Artificial Intelligence, Statistics, Data Mining, Network Analysis, Information Retrieval, Data Engineering

Positions

03/2018 until now	Senior Data Scientist at Uniqa Insurance Group, Vienna, Austria
05/2017 – 02/2018	Data Scientist at Uniqa Insurance Group, Vienna, Austria
02/2015 – 04/2017	Post doctoral researcher at the Data Science group of GESIS - Leibniz Institute for the Social Sciences, Cologne, Germany
09/2015 – 11/2015	Visiting researcher at the Information Science Institute of University of Southern California (USC), Los Angeles, USA; Supervision: Kristina Lerman
05/2014 – 02/2015	Research assistant at the Data Science group of GESIS - Leibniz Institute for the Social Sciences, Cologne, Germany
11/2013 – 01/2014	Visiting researcher at GESIS - Leibniz Institute for the Social Sciences, Cologne, Germany; Supervision: Markus Strohmaier
08/2013 – 10/2013	Visiting researcher at the University of Würzburg, Germany; Supervision: Andreas Hotho
11/2011 – 04/2014	Research assistant at the Knowledge Technologies Institute at Graz University of Technology, Austria

Education

11/2011 – 02/2015	Ph.D. in Computer Science **(with distinction)** at Graz University of Technology, Austria; Dissertation: Modeling Aspects of Human Trails on the Web, Advisor: Prof. Markus Strohmaier
3/2010 – 11/2011	Diplom in Software Development and Business Management **(with distinction)** at Graz University of Technology, Austria; Master's Thesis: Time Series Analysis of Online Social Network Data and Content, Advisor: Prof. Markus Strohmaier
10/2006 – 3/2010	B.Sc. in Software Development and Business Management at Graz University of Technology, Austria; Advisor: Prof. Michael Granitzer

Competences & Personal Skills

Competences	**Machine Learning** (e.g., employment of several core machine learning algorithms such as boosted trees or deep learning), **Statistics** (e.g., hypotheses testing, Bayesian inference, frequentist statistics, regression analysis), **Data Engineering** (e.g., acquisition of large data, feature extraction, OCR text recognition), **Data Mining** (e.g., applying previously mentioned tools for identifying patterns in large data), **Network Analysis** (e.g., handling of large graphs, calculation of network properties), **Information Retrieval** (e.g., extracting semantics, recommender systems), **Scaled Computing** (e.g., multiprocessing, Hadoop, HDFS, Hive, Spark, BigQuery, Cloud computing), **Service Development** (e.g., deploying machine learning models, API services, Kubernetes, DevOps)
Programming Skills	**Python**; further knowledge in R, HTML5, CSS3, Javascript, SQL, MongoDB, Flask, Solidity, Spark, BigQuery, LaTeX, etc.
Project- and Team-leading	Team lead, project lead, and coordination experience in enterprise and academic activities
Native Language	German
Foreign Languages	English (proficient user)

Awards & Honors

Kaggle 1st place LANL Earthquake Prediction competition
https://www.kaggle.com/c/LANL-Earthquake-Prediction

Kaggle 1st place Quora Insincere Questions Classification competition
https://www.kaggle.com/c/quora-insincere-questions-classification

Best Paper Award CORE A* conference Philipp Singer, Denis Helic, Andreas Hotho and Markus Strohmaier; **HypTrails: A Bayesian Approach for Comparing Hypotheses About Human Trails on the Web**; 24th International World Wide Web Conference, Florence, Italy, 2015 (CORE A* conference, acceptance rate 131/929, 14.1% quota)

Best Paper Award Christoph Trattner, Philipp Singer, Denis Helic and Markus Strohmaier. **Exploring the Differences and Similarities of Hierarchical Decentralized Search and Human Navigation in Information Networks.** 12th International Conference on Knowledge Management and Knowledge Technologies, Graz, Austria, 2012

Selected Peer-reviewed Publications

full publication list available at www.philippsinger.com

2018 Fariba Karimi, Mathieu Génois, Claudia Wagner, **Philipp Singer** and Markus Strohmaier . **Homophily influences ranking of minorities in social networks.** *Nature Scientific Reports, vol 8*, 2018.

2017 Martin Becker, Florian Lemmerich, **Philipp Singer**, Markus Strohmaier and Andreas Hotho. **MixedTrails: Bayesian Hypothesis Comparison on Heterogeneous Sequential Data.** *Data Mining and Knowledge Discovery*, 2017.

2017 **Philipp Singer***, Florian Lemmerich*, Robert West, Leila Zia, Ellery Wulczyn, Markus Strohmaier and Jure Leskovec. **Why We Read Wikipedia.** *26th International World Wide Web Conference*, Perth, Australia. (CORE A* conference, acceptance rate 164/966, 17% quota)

2017 **Philipp Singer***, Claudia Wagner*, Fariba Karimi, Jürgen Pfeffer and Markus Strohmaier. **Sampling from social networks with attributes.** *26th International World Wide Web Conference*, Perth, Australia. (CORE A* conference, acceptance rate 164/966, 17% quota)

2017 **Philipp Singer***, Dimitar Dimitrov*, Florian Lemmerich and Markus Strohmaier. **What Makes a Link Successful on Wikipedia?.** *26th International World Wide Web Conference*, Perth, Australia. (CORE A* conference, acceptance rate 164/966, 17% quota)

2016 Florian Lemmerich, Martin Becker, **Philipp Singer**, Denis Helic, Andreas Hotho and Markus Strohmaier. **Mining Subgroups with Exceptional Transition Behavior.** *22nd ACM SIGKDD Conference on Knowledge Discovery and Data Mining*, San Francisco, USA, 2016. (CORE A* conference, full paper acceptance rate 70/784, 9% quota)

2015 **Philipp Singer**, Denis Helic, Andreas Hotho and Markus Strohmaier. **HypTrails: A Bayesian Approach for Comparing Hypotheses About Human Trails on the Web.** *24th International World Wide Web Conference*, Florence, Italy, 2015. (CORE A* conference, acceptance rate 131/929, 14.1% quota) **best paper award**

2014 **Philipp Singer**, Denis Helic, Behnam Taraghi and Markus Strohmaier. **Detecting Memory and Structure in Human Navigation Patterns Using Markov Chain Models of Varying Order.** *PLoS ONE, vol 9(7)*, 2014. (2014 Impact Factor 3.234)

Teaching Experience

Winter 2016/17 Lecturer, Machine Learning and Data Mining at University of Koblenz-Landau, Germany

Summer 2016 Guest Lecturer, Data Science at University of Koblenz-Landau, Germany

Winter 2015/16 Lecturer, Machine Learning and Data Mining at University of Koblenz-Landau, Germany