

Sebastian Blohm

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May 2018 – Present
European Microsoft Innovation Center GmbH, Munich
Principal Applied Scientist
Machine Learning for Knowledge Management, Enterprise Search and Conversational AI
- Leadership: lead of 5 ML engineers and scientists for 2 years, OKRs, hiring, cross team and cross location collaboration, set up dev ops, compliance.
- Delivering to products: Viva Topics, Cortana, Microsoft Search
- Technology: TensorFlow, Azure DevOps, Kusto, inference distributed over >100k machines and >100 requests/s

April 2013 – May 2018
Microsoft Research Ltd., Cambridge, U. K.
Senior Applied Researcher
Leading the adoption of state-of-the art Machine Learning approaches as the interface between research groups and product teams.
- Machine Learning: Deep Neural Nets, LSTM, Bayesian Inference, Boosted Decision Trees, Privacy-preserving deep learning.
- Data Science techniques: A/B test, user surveys, hypothesis tests
- Technology: C#, J2EE, Datalake, U-SQL, MapReduce, Tensorflow

March 2010 – March 2013
Microsoft Search Technology Center, London and Munich
Software Development Engineer
Optimizing relevance ranking and presentation of Bing web search results. Analyst for web user experience data. Data Mining for index coverage analysis for international markets.
- Very big data: ran scripts on >100TB and 10k machines, deployment to >>10k user-facing machines in one night, web scale text mining
- Machine Learning: Neural Networks, Boosted Decision Trees
- Data Science techniques: A/B test, custom-built metrics, hypothesis tests, clustering, millisecond-level timing optimization.

Dec 2005 – Feb 2010
Universität Karlsruhe (TH), Karlsruhe, Germany
Research Associate, Knowledge Management Research Group
Large scale Information Extraction from text and Semantic Search -
Development: Java (GitHub, J2EE, JDBC, Spring Framework)
- Project Management: Scrum (2 years), UML, technical and project leadership (1 year), project finance management (> 2M EUR)

June 2008 – Sept 2008
IBM Almaden Research Center, San José, California
Research Intern, Unstructured Information Mining Group

Education

Dec 2005 – January 2010
Universität Karlsruhe (TH), Germany.
PhD, Institute of Applied Informatics and Formal Description Methods. Supervisor: Prof. Dr. Studer Grade 1.0(magna cum laude)

April 2004 – Oct 2005
Saarland University, Germany.
Master of Science in Computer Science. Grade 1.3 (A)

Jan. 2001 – Sept. 2003
University of Osnabrück, Germany.
Bachelor of Science in Cognitive Science. A with distinction (1.1)

Fall Term 2002
McGill University, Montreal, Canada.
Exchange student

1994-1999
Ratsgymnasium Osnabrück, Germany (name of high school).

Abitur university qualification. Grade 1.2 (A).

Academic Activities

- IBM Ph.D. Fellowship Award (received twice)**
2008/09 and 2009/10 Fellowship awarded in worldwide competition. Including a \$17,500 stipend per year.
- Workshop Organized**
2008 Workshop on High-Level Information Extraction at the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery (ECML PKDD 2008).
- Talks, Seminars and Classes Taught**
2016 Search Solutions: De-cluttering your Mailbox with Bayesian Inference
2015 Future Decoded: ML and Clutter in Office 365
2009 Knowledge Discovery and Text Mining. With P. Sorg and R. Studer.
2007 Knowledge Processing with Neural Networks. With P. Hitzler.
2006, 2007 Fundamentals of Computer Science I. With R. Studer.
- Conference Reviewer, Program Committee Member**
2014, 2018 World Wide Web Conference (WWW)
2016 Web Search and Data Mining (WSDM)
2009,2014-15 International Semantic Web Conference (ISWC)
2007, 2008 International Joint Conference on Neural Networks (IJCNN)

Languages

Native German speaker, fluent English, good French, basic Spanish

Selected Publications and Patents

Dmitriy Meyerzon Yauhen Shnikto, Sebastian Blohm: Dynamic Content Suggestions in a Sparse Traffic Environment. US Patent 10,127,230. 2018.

Sebastian Blohm, Vivian Yaw-Wen Chu, Ching-Tien Ho, Yunyao Li, Huaiyu Zhu: Systems and methods for information extraction using contextual pattern discovery. US Patent 8,630,989. 2014.

Yunyao Li, Vivian Chu, Sebastian Blohm, Huaiyu Zhu, Howard Ho: Facilitating pattern discovery for relation extraction with semantic-signature-based clustering. 20th ACM Conference on Information and Knowledge Management (CIKM 2011)

Sebastian Blohm: Large-scale pattern-based information extraction from the world wide web. Karlsruhe Institute of Technology, PhD Thesis 2011.

Sebastian Blohm, Markus Kröttsch, Philipp Cimiano: The Fast and the Numerous – Combining Machine and Community Intelligence. In *Proceedings of the AAAI 2008 Workshop on Wikipedia and Artificial Intelligence*. July 2008.

Sebastian Blohm, Philipp Cimiano, Egon Stemle: Harvesting Relations from the Web-Quantifying the Impact of Filtering Functions. In *Proceedings of the 22nd Conference on Artificial Intelligence (AAAI-07)*, pp. 1316--1323.

Stephan Bloehdorn, Sebastian Blohm: A Self Organizing Map for Relation Extraction from Wikipedia using Structured Data Representations. International Workshop on Intelligent Information Access (IIIA-2006), Helsinki, Finland, July 6-8, 2006. July 2006.

Marc Strickert, Barbara Hammer, Sebastian Blohm: Unsupervised recursive sequence processing. *Neurocomputing 63: 69-97 (2005)*