Karl Moritz Hermann

Experience

11/2014–current **Staff Scientist**, *Google DeepMind*, London.
Language Understanding Research Group.

04/2014–10/2014 **Co-founder and CEO**, *Dark Blue Labs*, London.
Created Dark Blue Labs, a startup focussing on deep learning for language with the aim of solving natural language understanding and developing intelligent products along the way. Acquired by Google in October 2014.

06/2013–09/2013 **Research Intern**, *Google*, New York.
Worked on frame parsing using distributed representations, with results published at ACL 2014.

06/2012–09/2012 **Visiting Researcher**, *Information Sciences Institute, University of Southern California*, Los Angeles.
Worked on hypergraph replacement grammars, work published at COLING 2012 and ACL 2013.

09/2008–06/2013 **Fellow Senior Associate**, *McKinsey & Company*, Berlin.
Fellow Senior Associate at McKinsey & Company. Consulted companies and public bodies worldwide on a variety of issues. Specific areas of focus include IT-strategy, marketing and pharmaceuticals. Took educational leave to commence DPhil studies from autumn 2010 onwards.

10/2007–02/2008 **Stagiaire**, *European Commission*, Brussels.
Traineeship at the European Commission, Department General for Information Society and Media. Work included participation in stakeholder meetings and inter-departmental conferences, policy analysis, review and conducting feasibility studies for new policies.

Education

2014–2014 **Postdoctoral Researcher**, *Department of Computer Science*, University of Oxford.
Research on Semantic Parsing with Deep Learning.

2010–2014 **DPhil in Computational Linguistics**, *Department of Computer Science*, University of Oxford.
Thesis on Distributed Representations for Compositional Semantics.

2006–2007 **MSc in International Politics**, *School of Oriental and African Studies*, University of London.
Graduated with Merit.

2003–2006 **BA (hons.) in Computer Science**, *Somerville College*, University of Oxford.
Graduated with First Class degree. Converted to MA (oxon.) in 2011.

2005–2006	**Certificate International Relations**, *Birkbeck College*, University of London. Evening course in International Relations concurrent to Oxford degree. First class.

Honors and Awards

2010–2014	EPSRC and departmental stipend for the duration of my DPhil studies
2006	Nominated for the British Student of the Year Award
2006	Mary Somerville Prize for First Class Honours in Oxford
2005	University Prize for a First Class Degree in Part A Finals.
2005	Scholarship to the International Business Today Conference, New York.
2004–2006	Cobbe Scholarship of Somerville College, University of Oxford.
2004	University Prize for a First Class Degree in Honour Moderations.

Languages

German	native
English	fluent
French	advanced
Latin & Greek	Great Latinum & Gracum *German qualifications for ancient languages.*

Publications

Lei Yu, Karl Moritz Hermann, Phil Blunsom, and Stephen Pulman. Deep Learning for Answer Sentence Selection. In *NIPS Deep Learning Workshop*, December 2014.

Karl Moritz Hermann. *Distributed Representations for Compositional Semantics*. PhD thesis, University of Oxford, July 2014.

Edward Grefenstette, Phil Blunsom, Nando de Freitas, and Karl Moritz Hermann. A deep architecture for semantic parsing. *Proceedings of the ACL 2014 Workshop on Semantic Parsing*, June 2014.

Karl Moritz Hermann and Phil Blunsom. Multilingual Models for Compositional Distributional Semantics. In *Proceedings of ACL*, June 2014.

Karl Moritz Hermann, Dipanjan Das, Jason Weston, and Kuzman Ganchev. Semantic Frame Identification with Distributed Word Representations. In *Proceedings of ACL*, June 2014.

Tomáš Kočiský, Karl Moritz Hermann, and Phil Blunsom. Learning Bilingual Word Representations by Marginalizing Alignments. In *Proceedings of ACL*, June 2014.

Karl Moritz Hermann and Phil Blunsom. Multilingual Distributed Representations without Word Alignment. In *Proceedings of ICLR*, April 2014.

Jacob Andreas, Daniel Bauer, David Chiang, Karl Moritz Hermann, Bevan

Jones, and Kevin Knight. A Primer on Graph Processing with Bolinas. Technical report, Information Sciences Institute, USC, August 2013.

David Chiang, Jacob Andreas, Daniel Bauer, Karl Moritz Hermann, Bevan Jones, and Kevin Knight. Parsing Graphs with Hyperedge Replacement Grammars. In *Proceedings of ACL*, August 2013.

Karl Moritz Hermann and Phil Blunsom. The Role of Syntax in Vector Space Models of Compositional Semantics. In *Proceedings of ACL*, August 2013.

Karl Moritz Hermann, Edward Grefenstette, and Phil Blunsom. "not not bad" is not "bad": A distributional account of negation. *Proceedings of the ACL Workshop on Continuous Vector Space Models and their Compositionality*, August 2013.

Bevan Jones, Jacob Andreas, Daniel Bauer, Karl Moritz Hermann, and Kevin Knight. Semantics-Based Machine Translation with Hyperedge Replacement Grammars. In *Proceedings of COLING 2012*, December 2012. First four are joint first author in randomized order.

Karl Moritz Hermann, Phil Blunsom, and Stephen Pulman. An Unsupervised Ranking Model for Noun-Noun Compositionality. In *Proceedings of *SEM 2012*, June 2012.

Karl Moritz Hermann, Chris Dyer, Phil Blunsom, and Stephen Pulman. Learning Semantics and Selectional Preference of Adjective-Noun Pairs. In *Proceedings of *SEM 2012*, June 2012.

Invited Talks

Oct 2013 **South England NLP Meetup @ UCL**.
Linguistically Motivated Vector Space Models for Compositional Semantics

Jun 2014 **University of Cambridge**.
Multilingual Models for Distributed Semantics

Dec 2014 **University of Boulder, CO**.
Distributed Representations for Compositional Semantics and Frame Semantic Parsing.

Aug 2017 **RoboNLP Workshop, ACL, Vancouver**.
Grounded Language Learning in Simulated Environments

Academic Duties

○ Organising committee of 3rd Workshop on Continuous Vector Space Models and their Compositionality (CVSC), ACL 2015; 1st Workshop on Representation Learning for NLP, ACL 2016; 2nd Workshop on Representation learning for NLP, ACL 2017.
○ Workshop Chair of EMNLP 2017.
○ ACL Tutorial on "New Directions in Vector Space Models of Meaning" with E. Grefenstette, G. Dinu, and P. Blunsom

- Reviewer for SEM 2014, Coling 2014, ACL 2014 (SP workshop), IWCS 2015, ICLR 2015, ICML 2015, NAACL 2015 (VSM workshop), ACL-IJCNLP 2015, VSM 2015, EMNLP 2015, TACL (standing pool 2015-2016), Computational Linguistics, NIPS 2015, ACL 2016, NAACL 2016, ICLR 2016, ICLR 2017