Gábor Melis

Curriculum Vitæ

Professional Experience

Staff Research Scientist at **Google DeepMind** 2015 –
Artificial Intelligence Research, London

My research focussed on language modelling, representation learning, generative modelling, optimization with a bit computer science. Of special interest to me are probabilistic latent variable models. I'm a Bayesian, with an unfortunate empirical twist.

Consultant at **Franz** 2010 – 2015
Lisp Compiler Implementation, Oakland/Budapest

Worked on the Allegro CL Lisp environment mainly on native threading and on the query engine of the AllegroGraph triplestore.

Research Engineer at **Ravenpack** 2006 – 2009
Applied Artificial Intelligence, Marbella

Researching relationship between news and the stock market. Algorithmic trading.

Senior Software Engineer at **Essnet** 1998 – 2005
Gaming Services, Stockholm/Budapest

Oversaw design and architecture, conducted studies, evaluated technologies and tools.

Awards

- 2014, Kaggle Higgs Boson ML Challenge, 1st out of 1785
- 2012, Kaggle Stackoverflow Competition, 1st out of 161
- 2011, Google AI Challenge, 1st out of 4617
- 2009, Computer Games Olympiad, Hex, 3rd place
- 2008, Computer Games Olympiad, Hex, 1st place
- 2004, Computer Games Olympiad, Hex, 1st place
- 2003, Computer Games Olympiad, Hex, 1st place

Skills & Strengths

- Machine learning
- Programming
- Self-driven
- Strong individual contributor

Education

PhD *Computer Science Department*
UCL, London
Thesis: Towards Better Generative Models of Language

MSc *Software Architect – Mathematician*
ELTE, Budapest
Major: Artificial Intelligence
Thesis: Adaptive Neural Networks and Fuzzy Logic

BSc *Programmer – Mathematician*
ELTE, Budapest

Selected Publications

- Adaptive Hashing: Faster Hash Functions with Fewer Collisions *(G. Melis, ELS 2024)*
- Mutual Information Constraints for Monte-Carlo Objectives *(G. Melis, A György, P. Blunsom, JMLR 2022)*
- Mogrifier LSTM *(G. Melis, T. Kočiský, P. Blunsom, ICLR 2020)*
- On the State of the Art of Evaluation in Neural Language Models *(G. Melis., C. Dyer, P. Blunsom, ICLR 2018)*.

Interests

My main interests are machine learning, programming, competitions and board games. I wrote Six, a Hex playing program that won the gold medal at several Computer Games Olympiads. Participated in the Netflix Prize and won the second *Google AI Contest*. Also won the *Kaggle Stackoverflow* and *Higgs Boson* contests.

I am the author of various open-source libraries, which can be found on github.

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