

*Vitae*

**SJOERD VAN STEENKISTE**

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**EDUCATION**

PhD in Informatics (Artificial Intelligence), *in progress*  
Dalle Molle Institute for Artificial Intelligence, Switzerland

MSc *summa cum laude* in Artificial Intelligence, 2016  
Thesis: “A Wavelet-based Encoding for Neuroevolution”  
Advisor: Dr. Jan Koutník, Dr. Kurt Driessens  
Maastricht University, Netherlands

MSc *summa cum laude* in Operations Research, 2015  
Thesis: “Designing Balanced Parametrised Multiwavelets via Lossless Systems”  
Advisor: Prof. Dr. Ir. Ralf Peeters  
Maastricht University, Netherlands

BSc *cum laude* in Knowledge Engineering, 2013  
Thesis: “Bootstrap Feature Selection for Decision Trees”  
Advisor: Dr. Evgueni Smirnov  
Maastricht University, Netherlands

**RESEARCH INTERESTS**

Connectionist machine learning

Representation learning

Probabilistic generative models

Unsupervised Learning

## INDUSTRIAL EXPERIENCE

Research Intern, Google Brain, 2018

Research Intern, NNAISENSE, 2016

Research Intern, AtonRa Partners, 2014

## HONORS

NVAIL Pioneering Research Award, 2017.

Maastricht University Student Prize, 2016.

## BEST PAPER AWARDS

Outstanding paper award (with M. Chang, K. Greff, and J. Schmidhuber), NIPS Workshop on Cognitively Informed Artificial Intelligence, 2017.

Best master thesis award in Operations Research, Department of Knowledge Engineering, Maastricht University, 2015.

Best bachelor thesis award (2<sup>nd</sup>) in Knowledge Engineering, Department of Knowledge Engineering, Maastricht University, 2013.

## REFEREED CONFERENCE PROCEEDINGS

**van Steenkiste, S.**, Chang, M., Greff, K. & Schmidhuber, J. (2018). Relational Neural Expectation Maximization: Unsupervised Discovery of Objects and their Interactions. *International Conference on Learning Representations (ICLR)*

Greff, K.\*, **van Steenkiste, S.\***, & Schmidhuber, J. (2017). Neural Expectation Maximization. *Advances in Neural Information Processing Systems (NIPS) 30*, Curran Associates.

**van Steenkiste, S.**, Koutník, J., Driessens K., & Schmidhuber, J. (2016). A Wavelet-based Encoding for Neuroevolution. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO)*, ACM.

\* authors contributed equally

## REFEREED WORKSHOP ABSTRACTS

**van Steenkiste, S.** Chang, M., Greff, K. & Schmidhuber, J. (2017). Relational Neural Expectation Maximization. *NIPS workshop on Cognitively Informed Artificial Intelligence*.

Greff, K.\*, **van Steenkiste, S.\***, & Schmidhuber, J. (2017). Neural Expectation Maximization. *ICLR Workshop*.

*\* authors contributed equally*

## PRE-PRINTS

**van Steenkiste, S.**, Kurach, K. & Gelly, S. (2018). A Case for Object Compositionality in Deep Generative Models of Images. *Currently under review*.

## PRESENTATIONS

“Relational Neural Expectation Maximization” (2017), NIPS Workshop on Cognitively Informed Artificial Intelligence

“Symbol-like Representation Learning with Neural Expectation Maximization” (2017), Google Brain (Zürich office)