

# Serhii Havrylov

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## Education

**2016 –** PhD candidate – Institute for Logic, Language, and Computation, University of Amsterdam  
**2012 – 2014** MSc in Applied Mathematics – National Technical University of Ukraine  
*Diploma with honours*  
**2008 – 2012** BSc in Applied Mathematics – National Technical University of Ukraine  
*Diploma with honours*

## Work experience

**Oct 2013 -** [Grammarly](#)  
**Apr 2016** *Research engineer*  
Researching, prototyping and implementing machine learning algorithms for improving the accuracy of Grammarly's language core.  
**Sep 2015 -** [Clashot](#)  
**Oct 2015** *Machine learning consultant*  
Consulting R&D team on how to build automatic image tagging and description generating systems.  
**May 2013 -** [Silver Cup](#)  
**Oct 2013** *Quantitative analyst*  
Applying machine learning techniques for development and improvement trading strategies.

## Projects

Quagga – CUDA/Python library that allows multi-GPU utilization by exploiting model parallelism for deep learning architectures [[code](#), [documentation](#)]

Project reproduces the model from [Show and Tell: A Neural Image Caption Generator](#) [[code](#)]

Financial coding of school's budgets and expenditures (5<sup>th</sup> / 50, [drivendata](#)) [[code](#), [slides](#)]

Applying recurrent neural networks with fast dropout regularization for modeling and classification of human motion (Master's thesis)

[Classification of Psychiatric Problems Based on Saccades](#) (2<sup>nd</sup> award in IJCNN 2012 Competition: International Joint Conference on Neural Networks, Brisbane, Australia)

Development of dynamical visibility algorithm for time series analysis via complex networks, and its application for heart disease classification (Bachelor's thesis)

## Publications

*Havrylov, S., Titov, I.* Emergence of Language with Multi-agent Games: Learning to Communicate with Sequences of Symbols. // [ICLR2017 Workshop track](#)

*Bražinskas, A., Havrylov, S., & Titov, I.* Embedding Words as Distributions with a Bayesian Skip-gram Model. // [Bayesian Deep Learning NIPS 2016 Workshop](#)

*Gavrylov S.V.* Classifying motion capture sequences using recurrent neural networks // [SAIT 2014](#): System analysis and information technologies, Kyiv, Ukraine

*Gavrylov S.V., Drobyshch Y.P.* Human motion recognition using recurrent neural networks with fast dropout regularization // IAI 2014: XIV International Conference "Intelligent analysis of information", Kyiv, Ukraine

## Volunteering, teaching

Natural Language Processing 1, University of Amsterdam, Teacher Assistant, Fall term 2016

Summer school "[AACIMP-2015](#)": Theano [tutorial](#), lectures on convolutional neural networks and neural language models, project supervisor

Co-organizer and speaker at Kyiv deep learning [study group](#)

## Completed Trainings and Online Courses

NetCracker's training center (Java SE/EE, Oracle DB)

Probabilistic Graphical Models, Stanford University

Machine Learning, Stanford University

Networked life, University of Pennsylvania

Learning from data, Caltech

## Key Skills

### Technical skills

Python with data science stack: NumPy, SciPy, Pandas, scikit-learn, Theano, TensorFlow, PyTorch

CUDA C/C++, Java SE, R, MatLab

### Languages

English - full professional proficiency

Ukrainian, Russian - native