

Denis Yarats

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RESEARCH

My research interest is to develop intelligent agents that can communicate with people and perform useful tasks, with the ultimate ambition to liberate people from the burden of mundane routines. I want to advance the areas of NLP and RL through my research, as they allow the emergence of agents that can evolve over time through their interaction, which is an essential trait of intelligence.

EXPERIENCE

Facebook AI Research

Research Engineer

June 2016 - Present

Menlo Park, CA

I focus my research on advancing methods of NLP and RL in the settings of goal-oriented dialogues. Prior to this, I worked on developing state of the art algorithms for Machine Translation.

Quora

Staff ML Engineer

September 2013 - June 2016

Mountain View, CA

I served as a tech lead on the ML team and supported multiple large scale projects, such as engineering a distributed training framework and a real time ranking system. I also developed ranking and content understanding algorithms and enhanced data and release infrastructure. I provided a scalable and performant implementation for various ML algorithms, some of my work was open sourced (<http://github.com/quora/qmf>).

Bing, Microsoft

Software Engineer

November 2011 - September 2013

Bellevue, WA

I worked on improving the relevance of the search engine. In particular, I enhanced the performance and accuracy of the entity conflation algorithm by means of clusterization and classification. In addition, I reduced the latency of the ingestion data pipeline by optimizing the underlying algorithms and developing distributed analogues.

Yandex

Software Engineer

June 2011 - November 2013

Moscow, Russia

I focused on building an algorithm to generate predictions for car traffic jams in Moscow, with the goal to improve the city's severe road congestion. I developed an ML solution that leveraged both offline data and real-time signals in order to reliably forecast roadblocks.

PUBLICATIONS

Hierarchical Text Generation and Planning for Strategic Dialogue

D.Yarats*, M. Lewis*. Preprint 2017.

December 2017

Deal or No Deal? End-to-End Learning for Negotiation Dialogues

M. Lewis, D. Yarats, Y. Dauphin, D. Parikh, D. Batra. EMNLP 2017.

June 2017

Convolutional Sequence to Sequence Learning

J. Gehring, M. Auli, D. Grangier, D. Yarats, Y. Dauphin. ICML 2017.

April 2017

TALKS

Convolutional Sequence to Sequence Learning
Treehouse Talk at CLMS, University of Washington.

November 2017

Convolutional Sequence to Sequence Learning
International Conference on Artificial Intelligence (www.aiukraine.com).

September 2017

PRESS COVERAGE

Deal or no deal? Training AI bots to negotiate
<http://code.facebook.com/posts/deal-or-no-deal-training-ai-bots-to-negotiate>.

June 2017

A novel approach to neural machine translation
<http://code.facebook.com/posts/a-novel-approach-to-neural-machine-translation>.

May 2017

TEACHING

Introduction to Deep Learning
Teaching assistant, Facebook.

September 2016 - Present

Discrete Mathematics and Algorithms
Lecturer, Yandex School of Data Analysis.

September 2011 - November 2011

EDUCATION

Belarusian State University
M.S. in Computer Science & Math.

June 2011

Belarusian State University
B.S. in Computer Science & Math.

June 2010

SKILLS

PyTorch/Torch, Python, C/C++, CUDA, \LaTeX .

ACHIEVEMENTS

ACM ICPC World Final
Orlando, USA.

May 2011

Google Code Jam European Final
Zurich, Switzerland.

October 2008

REFERENCES

Michael Lewis

Research Scientist, Facebook AI Research

email: mikelewis@fb.com

Dhruv Batra

Assistant Professor, Georgia Institute of Technology

email: dbatra@gatech.edu

Larry Zitnick

Research Manager, Facebook AI Research

email: zitnick@fb.com