# **Anton Karazeev**

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#### **EXPERIENCE**

# **Teaching Assistant**

# Laboratory of Neural Networks and Deep Learning

March 2017 — Present

 Responsible for preparing practical and theoretical assignments for the course of Reinforcement Learning and theoretical assignments for the course of Natural Language Processing with the number of 100+ enrolled students each.

# **Research Assistant**

# <u>Laboratory of Functional analysis</u> of the Genome

June 2016 — Present

• Text mining, Natural language processing, Keyword extraction, Machine learning algorithms. As an intermediate result the new method of keywords extraction using Information Theory proposed (ResearchGate).

# **Data Scientist**

# Sberbank-Technology

August — October 2017

- Responsible for NLP projects. Participated in preparing the datasets and building baselines for competition <u>Sberbank Data Science Journey</u> which is based on <u>SQuAD</u>.
- Developed an analogue of Amazon Mechanical Turk to improve experience of colleagues who evaluated the quality of collected datasets (Python, Flask).

R&D Data Scientist HiQE Group March — June 2017

 Negotiated with IBM engineers and applied some of the IBM Watson's services in tasks of signal processing. The system of baby cry recognition was built.

### **EDUCATION**

# Moscow, Russia

# Moscow Institute of Physics and Technology

September 2014 — August 2018 (expected)

- B.Sc. in Computer Science and Physics, Department of Innovation and High Technologies
- Coursework for the state qualification exam in Physics at MIPT: "Molecular dynamics" [Code]
- Undergraduate Coursework: "Advanced toolkit for biomedical texts processing"

### **TECHNICAL EXPERIENCE**

# **Projects**

• <u>Frontopolar</u> (2017). Applied Reinforcement Learning for Stock Trading. State of the art results were reached. Different approaches were tested including Q-learning and Recurrent Reinforcement Learning.

### **Contributed to Open source**

- · Gensim fixed issue #671
- yandexdataschool/Practical\_RL PR #12

### **SKILLS**

- Russian: native, English: fluent, German: basics (A2)
- Programming languages: Python, C/C++, bash, R, experienced with SQL
- Python libraries: numpy, sklearn, pandas; for NLP: NLTK, Gensim; for Deep Learning: TensorFlow, PyTorch
- Experimented with RaspberryPi and Arduino. Projects
- Started "MIPT Deep Learning Club" to discuss and share ideas on deep learning topics

### **PUBLICATIONS**

"Generative Adversarial Networks (GANs): Engine and Applications"
Medium Story

August 2017

"Advanced Parser for Biomedical Texts"

Moscow Conference on Computational Molecular Biology, Poster, Thesis

July 27 — 30, 2017

#### **TEACHING**

**Deep Reinforcement Learning** 

October 2017 — Present

March 2017 — Present

course at MIPT, based on <u>rll.berkeley.edu/deeprlcourse/</u>

Practical assignments

**Deep Learning in Natural Language Processing** 

course at MIPT, based on cs224n.stanford.edu

Practical assignments

#### **ADDITIONAL EDUCATION**

"Summer school on Bayesian Methods in Deep Learning"	<b>DeepBayes Summer School</b>	August 26 — 30, 2017
"Big Data in Bioinformatics"	<b>Bioinformatics Summer School</b>	July 31 — August 5, 2017
"Natural Language Processing"	DeepHack Lab	September — December 2016

#### **HACKATHONS**

#### Aalto University, Helsinki

**Junction** 

November 24 - 26, 2017

- <u>LegalEngine</u> website/<u>telegram chat-bot</u>/email notification system, "qqmbr" team member, challenge by <u>Castrén & Snellman</u>
- Proposed solution makes the client-attorney interaction easier with the use of telegram chat-bot and email notifications, the attorney's work and billing more transparent to the client
- Python, Flask library, html, css

EPFL, Lausanne <u>LauzHack</u> November 11 — 12, 2017

- 1st place in challenge by SGS, "NN:Nerds" team member, Presentation, Devpost
- · Solution allows guick access to the main concepts found in documents
- Python, IBM Watson API for Natural Language Understanding

# Phystechpark, Moscow

**mABBYYlity** 

October 7 - 8,2017

- 4th place, "App in the Restaurant" iOS application, <u>Demo</u>, <u>Presentation</u>
- App allows to recognise entities from restaurant menus using smartphone's camera and translates them. ABBYY Real-Time Recognition SDK, ABBYY Lingvo API and Spoonacular API were used
- Python, Flask library

# Skolkovo Moscow School of Management, Moscow

**Neurocampus** 

September 22 — 24, 2017

- 2<sup>nd</sup> place, @SenseOfSpeech bot telegram-bot, Presentation
- Proposd solution allows to extract emotions from user's recorded speech. Also it helps to train selected emotion with samples from TED talks
- Python, Telegram API

### ITMO, Saint Petersburg

**BioHack** 

March 3 - 5, 2017

- Python, Text Mining, parsing the records from PubMed and UMLS.
- Analysis of research trends of chemical compounds and diseases during period of 1990-2015 using parsed information from PubMed database. Project