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Who I am?

Applied Mathematics and Informatics student with 1,5 years of development experience.
Open-minded and hard-working person with a huge sphere of interests and analytical thinking.
Hackathons participator and winner.

Work experience

2017 - present DevOps Intern
Intel
Working in a crossed-geo team.

Education

2015 - Present Applied Mathematics and Information Science, 4th year student
NRU HSE-NN, Faculty of Informatics, Mathematics, and Computer Science
Thesis: ASR methods research (using DeepSpeech to recognize speech in Russian language)

Skills

Programming	<div><div></div><div></div></div> <ul style="list-style-type: none">• Python: OpenCV, PyTorch, scikit-learn classifiers, KenLM• C/C++(STL)
Operating systems	<div><div></div><div></div></div> <ul style="list-style-type: none">• Windows, UNIX/Linux• .Bat/Shell scripts
ML & DL	<div><div></div><div></div></div> <ul style="list-style-type: none">• Familiarity with LR, SVM, Markov Chains, DNN, CNN, RNN, LSTM.
Algorithms and Data Structures	<div><div></div><div></div></div> <ul style="list-style-type: none">• Sorting, path-finding, nearest neighbor, greedy algorithms (heuristics)• Common data structures• Small-World graphs
Languages	<div><div></div><div></div></div> <ul style="list-style-type: none">• Russian (naitive)• English (upper-intermediate level)

Experience

- **Bachelor's Thesis (2019):** "Using Deepspeech architecture to develop ASR in Russian language".(PyTorch+KenLM)

I focused on development of the Russian language speech recognition system based on DeepSpeech architecture. The system was trained on a custom speech dataset which was collected from YouTube. The language model was developed based on corpus of popular articles in Russian version of Wikipedia. The resulting system was tested on a dataset consisting of audio recordings of Russian literature recorded by more than 25 different speakers, which is known as voxforge.org dataset. The best WER demonstrated by my approach currently equals to 15.8% with language model and 27% without language model usage, but could be improved with bigger dataset.

- **Coursework (2017):** "MSW Algorithm Improvement". (Done with Java)

Metrized Small World uses a small-world graph as an approach to Nearest neighbour search problem. My task was to improve an algorithm on synthetic vector dataset (in different dimensions) with the idea of Locality-sensitive hashing. Improved algorithm works approximately 19 times faster in 2-dimensional space and gives small speed-up in 64-dimensional space.

- **Hackathons participation:** Timebook (1st place), [Sibur Challenge](#) (3rd place), iFest (3rd place)