GEORGE FEDOSEEV

Deep Learning Engineer



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Experience

Senior Machine Learning Engineer

at Giant.AI (Campbell, CA, remote), robotics startup

May 2020 – present

Department: Reinforcement Learning team **Tasks:** offline reinforcement learning, sim2real, reward learning, encoder representation learning, real robot inference pipelines, active learning.

Achievements:

- Contributed to a successful approach for training RL models on real robots without simulation.
- Successfully trained CV and control models on real robot performing various pick-and-place tasks using vision and proprioception.
- Developed active learning framework for computer vision models.

Senior Machine Learning R&D Engineer

at Huawei (Saint-Petersburg, Russia)

Sep 2019 – May 2020

Department: Voice Assistant

Tasks: speech recognition, intent classification and named entity recognition from text messages, active learning for NLP, models optimization for inference in production.

Achievements:

- Delivered performant NLP production models for voice assistant.
- Contributed to the development of NLP data annotation system with ML models and human in the loop.
- Designed and implemented a new architecture for speech recognition fusing modern NLP and ASR approaches.
- Led a small team of two ML engineers.

Software Engineer

at EventAgrate Software and Technologies (Dubai, UAE)

Feb 2017 – Jan 2019

Worked on 30+ interactive experience projects for exhibitions and shows.

- Connecting various hardware into exciting installations: VR, AR, touch screen apps, arduinos, lidars, kinect, OptiTrack motion tracking.
- Developing LAN multiplayer apps, games in VR and on touch screens.
- R&D in sensing with RFID trackers and lidars, attaching AR applications to real-world keypoints and point clouds.

Education

Sep 2013 – Jun 2018

Applied Math and Computer Science

at Saint-Petersburg State University

Thesis: Development of speech recognition system for indexing and searching in a big collection of mediafiles. \bigotimes

Publications

- Iakushkin, O., <u>Fedoseev, G.</u>, Shaleva, A., Degtyarev, A., & Sedova, O. (2018, September). Russian-language speech recognition system based on deepspeech. In Proceedings of the VIII International Conference on Distributed Computing and Grid-technologies in Science and Education (GRID 2018).
- <u>Fedoseev, G.</u>, et al. "A continuous integration system for MPD Root: Deployment and setup in GitLab." Saint-Petersburg State University (2016).

Tools

python, numpy, torch, pandas, jupyter, plotly, FastAPI + React, multi-processing, RPC, docker, git, linux, AWS, sql/nosql databases

Research interests

- reinforcement learning
- computer vision
- generative models
- representation abstraction and compression
- concept learning and world modeling
- neural control in robotics

Other

- Kaggle Competitions Expert Kaggle/GeorgeFedoseev
- Developed iOS productivity app 3 Things to Do
- Co-Developed iOS hair-coloring app HairBrush