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MIKITA SAZANOVICH

LinkedIn Profile
GitHub profile

SUMMARY

I have diverse experience in Machine Learning, Software Engineering, and Competitive Programming through multiple internships and competitions.

EDUCATION

Saint Petersburg, Russia — **Higher School of Economics** — **Sep 2019-present**
MS in Computer Science — **(until Jun 2021)**

- GPA: 9.95 out of 10.
- Coursework: Generative Models in Machine Learning, Machine Learning on Big Data, Web Search, Recommender Systems, Software Project Management.

Saint Petersburg, Russia — **Higher School of Economics** — **Sep 2015-Jun 2019**
BS in Computer Science — **(4 years)**

- GPA: 9.9 out of 10.
- Coursework: Image Analysis, Machine Learning I & II, Deep Learning, Natural Language Processing, Speech Recognition and Generation, Reinforcement Learning, Databases, Building Database, Software Design, Parallel Programming, Functional Programming.

PROFESSIONAL EXPERIENCE

London, United Kingdom — **DeepMind** — **Mar 2021-present**
Research Engineer Intern — **(2 months)**

- Working on machine learning applications for combinatorial optimization.
- Tech: Python, TensorFlow.

Zürich, Switzerland — **Google** — **Dec 2019-Apr 2020**
Research Intern — **(4 months)**

- Worked on the Google Brain team, where I developed a large-scale (3.4 billion parameters) natural language understanding model in TensorFlow and Python. The model increased the overall metrics by 2% with some tasks reaching up to 20% improvement.
- Contributed to the design of the second version of the internal machine learning framework written in C++.
- Tech: Python, TensorFlow, TPUs, C++.

Toronto, Canada — **Uber** — **Jul 2019-Sep 2019**
Research Intern — **(3 months)**

- As a part of the Advanced Technologies Group, I implemented an effective method of using simulated data for safe real-world machine learning in PyTorch and Python.
- Contributed to and co-authored a CVPR 2020 paper on LiDAR simulation.
- Tech: Python, PyTorch, GPUs, Horovod, Docker.

Los Angeles, United States — **Google** — **Jun 2018-Sep 2018**
Software Engineer Intern — **(3 months)**

- Developed the next iteration of debugging tools for Google Drive in Java. The tools are used by tens of engineers internally.
- Conducted interviews with engineers regarding wanted features, updated backend APIs, incorporated them into the debugging service and integrated with the frontend.
- Tech: Java, gRPC, RxJava-like framework, Microservices platform, Database services.

Zürich, Switzerland — **Google** — **Jul 2017-Sep 2017**
Software Engineer Intern — **(3 months)**

- Designed and launched an experimental feature for scheduling services in Google Calendar.
- The project was implemented in Java, and involved product discussions and algorithm design.
- Tech: Java, Guice, Protocol Buffers, Dagger Producers-like framework.

Additional Experience

Open Source Projects

- RL from Demonstrations in Dota 2 (2018-2019) — trained a DQN agent in the Dota 2 environment. The work included collection of video demonstrations from human experts and wrapping and maintaining the wrapper for the game client to serve as a learning environment.
- Reinforcement Learning Algorithms (2019) — provided implementations of classic RL algorithms.
- Context Helper (2017-2018) — developed and published a plugin for IntelliJ IDEA, which helps Java developers to find StackOverflow discussions that are relevant to their source code context in IDE. I optimized the experience by creating a corpus of data from StackOverflow and measuring the success of different methods on it.
- Blackout (2016) — developed a game for Android with libGDX. I worked on integration with Google Play Game Services, the infrastructure of game servers, and a client-server connection for real-time multiplayer.
- Contribution to GHC (2016)— resolved and committed a Glasgow Haskell Compiler request that asked for greater customization of GHCi (GHC repl) prompt. The result is available in GHC, starting from version 8.2.1.

Competitive Programming

- The 27th International Olympiad in Informatics, top 10%, silver medal, 2015.
- The 28th Belarusian National Olympiad in Informatics, absolute winner, 2015.
- The 27th Belarusian National Olympiad in Informatics, absolute winner, 2014.
- The 26th Belarusian National Olympiad in Informatics, gold medal, 2013.

Publications

- Imitation Learning Approach for AI Driving Olympics Trained on Real-world and Simulation Data Simultaneously.
  Mikita Sazanovich, Konstantin Chaika, Kirill Krinkin, Aleksei Shpilman.
  Workshop on AI for Autonomous Driving (AIAD), ICML 2020.

- LiDARsim: Realistic LiDAR Simulation by Leveraging the Real World.
  Sivabalan Manivasagam, Shenlong Wang, Kelvin Wong, Wenyuan Zeng, Mikita Sazanovich, Shuhan Tan, Bin Yang, Wei-Chiu Ma, Raquel Urtasun.
  CVPR 2020.

Programming Languages and Software

- Languages: Python, JVM family (Java, Kotlin, Scala), C++, Haskell.
- Databases: SQLite, Google Colossus.
- Frameworks: TensorFlow, PyTorch.
- Libraries: NumPy, SciPy, Pandas, Scikit-learn, OpenCV, Mathplotlib.
- Tools: PyCharm/IntelliJ IDEA, Jupyter Notebook, TensorBoard, Anaconda, virtualenv, Docker.
- Platforms: AWS EC2.