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# MIKITA SAZANOVICH

[Personal Website](#)  
[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**  
**Computer Science M.S.**      **(until Jun 2021)**

- GPA: 9.9 out of 10.
- Coursework: Web Search, Machine Learning on Big Data, Software Project Management.

**Saint Petersburg, Russia**      **Higher School of Economics**      **Sep 2015-Jun 2019**  
**Computer Science B.S.**      **(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.

## PROGRAMMING LANGUAGES AND SOFTWARE

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

## INDUSTRY EXPERIENCE

**Saint Petersburg, Russia**      **JetBrains**      **May 2020-present**  
**Research Engineer**      **(4 months)**

- Team: JetBrains Research.
- Leading the development of the company's codebases for machine learning competitions, such as a bi-yearly self-driving competition and a black-box optimization challenge.
- Mentoring two summer interns who are a part of the competitions.

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

- Team: Google Brain.
- Worked on machine learning research, where I explored novel directions towards increasing model capacity and implemented them in a large-scale machine learning language model. The final trained model had several billion parameters.

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

- Team: Uber ATG.
- Worked on self-driving research with the ATG's R&D department, where I developed and trained distributed machine learning models using both real-world and simulated data.

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

- Team: Google Drive.
- Worked on developing debugging tools for Drive. I was conducting interviews with engineers regarding needed features, accordingly updating backend APIs, incorporating them into the debugging service, and integrating with the frontend.

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

- Team: Google Calendar.
- Worked on improvements and experimental features for the Calendar's meeting scheduling services for enterprise users. The project involved product discussions and algorithm design.

## ADDITIONAL EXPERIENCE

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### 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

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- 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, Wenyan Zeng, Mikita Sazanovich, Shuhan Tan, Bin Yang, Wei-Chiu Ma, Raquel Urtasun.  
CVPR 2020.