DANIIL VOLGIN

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EXPERIENCE

Machine Learning Engineer, Speech Recognition   Aug 2022 - Present
Yandex, Virtual Assistant & Smart Speakers, alice.yandex.ru   *Moscow, Russia*

- Iteratively improved recognition quality by significant percentages by conducting extensive research/experiments
- Improved recognition quality by implementing personalized speech recognition to integrate music listening data
- Maintained a low level of user bug reports regarding incorrect recognition
    - Iteratively fine-tuned models using crowdsourced data
    - Implemented technique for efficient fine-tuning on new domains
    - Established a duty system within the team for analyzing bug reports
    - Developed a monitoring system to evaluate the performance of new models regarding reported issues
- Led transition to new training framework by implementing initial version, assigning tasks to team, code reviewing
- Consolidated models for several device domains into one without compromising quality simplifying release cycles
- Accelerated model training by 15% by profiling our training framework, identifying bottlenecks
- Conducted classes on speech recognition as a part of the speech source at the Yandex School of Data Analysis
- Supervised new team members
- Attended Interspeech 2023 conference to stay updated on industry trends and advancements

Software Engineer, Web-Backend   Feb 2021 - Feb 2022
Yandex, home services platform   *Moscow, Russia*
- Implemented backend for website's content administration and deployment
- Implemented part of the backend for order processing

EDUCATION

Bachelor of Computer Science, Higher School of Economics   2019 - 2023
- Applied Mathematics and Informatics
- Machine Learning and Applications

AWARDS

Codeforces, Link
ICPC semi-finals (Northern Eurasia), 103th place out of 276   2023
ICPC quarterfinal (Moscow Regional), Third Award   2020
Google Code Jam Round 2, Participant   2020

SKILLS

Languages	C++, Python, Go
Data Science	numpy, sklearn, PyTorch
Technologies	Algorithms, SQL, Git, Unix, Docker, Android
Markup	Latex

LANGUAGES

Russian	Native
English	Upper-Intermediate

DETAILED ML ENGINEER EXPERIENCE

Machine Learning Engineer Aug 2022 - Present
Yandex, Virtual Assistant & Smart Speakers, alice.yandex.ru *Moscow, Russia*

- Iteratively improved speech recognition quality

  - Curated in-house dissatisfaction analysis to determine improvement directions
  - Conducted extensive research and experiments on model training
  - Achieved up to tens of percent improvements in some target domains
- Implemented contextualized speech recognition

  - Personalized speech recognition by integrating user music listening data
  - Implemented rapid fixes system for a small set of selected phrases, enhancing their recognition accuracy
- Responsible for maintaining a low level of user bug reports on incorrect recognition

  - Iteratively fine-tuned models using crowdsourced data
  - Implemented efficient fine-tuning technique that allows adapting new domains without compromising quality on main one
  - Established a duty system within the team for analyzing bug reports
  - Developed a monitoring system to evaluate the performance of new models in addressing reported issues
- Responsible for the training framework upgrade

  - Implementing the initial version of the new framework
  - Led the transition by coordinating subtasks assignments
  - Reviewed code of implementations of assigned subtasks
- Consolidated recognition models for several device domains into one

  - Trained one model for various domains without compromising quality on all of them
  - Simplified improvement and release cycles in these domains
- Accelerated speech recognition model by 15%

  - Implemented speed benchmark
  - Conducted profiling of our training framework and determined bottleneck
- Conducted classes on speech recognition as part of the speech source at the Yandex School of Data Analysis
- Supervised new team members
- Attended Interspeech 2023 conference to stay updated on industry trends and advancements