Azamat Usmanov

Education

Moscow Institute of Physics and Technology (MIPT)

Faculty of Radio Engineering and Cybernetics

2021 - Present

- O Specialization: Applied Mathematics and Physics
- O Department: Multimedia Technologies and Telecommunications
- o GPA: 4.3/5
- Academic Excellence Scholarship recipient

Work Experience

Huawei Research Institute

Assistant Engineer

July 2024 - February 2025

- Research and implementation of Large Language Models (LLMs)
- O Focus on optimizing and evaluating model performance

Skills

Programming Languages: Python, C/C++, MATLAB

Python Tools: NumPy, Pandas, PyTorch, Matplotlib, Scikit-learn, NLTK

 $\textbf{NLP} \colon \mathsf{Word2Vec}, \ \mathsf{Trasnformers}, \ \mathsf{GPT-2}, \ \mathsf{BERT}, \ \mathsf{Mamba}, \ \mathsf{Megalodon}$

Big Data Tools: Hadoop (HDFS, MapReduce, YARN), Spark

Data Processing: Text processing, Audio/Video processing, Data analysis

Subjects: Linear algebra, Probability theory, Statistical analysis **Languages**: English (B2), Russian (Native), Uzbek (Native)

Achievements

67th MIPT All-Russian Scientific Conference

April 2025

April 2024

O Research topic: Rapid Evaluation of the Effectiveness of Prospective Architectures of Large Language Models

XI International Conference "Engineering & Telecommunication — En&T-2024" November 2024

O Research topic: Rapid Evaluation of the Effectiveness of Prospective Architectures of Large Language Models

Participant of the International Hackathon "Digital Breakthrough"

O Development of an automated system for analyzing video tutorials in order to assess their quality

2nd Place at the International Hackathon "Digital Breakthrough"

November 2023

Processing citizens' appeals

Additional Courses

MIPT Deep Learning School

September – November 2023

O Covered advanced topics in Deep Learning, including Neural Networks, Optimization, and Applications

NLP & Reinforcement Learning Course

February – June 2024

O Focused on Natural Language Processing techniques and Reinforcement Learning algorithms

Algorithms and data structures VK

February – April 2025

O Fundamentals of algorithms and data structures, data search and sorting, hashing and strings, trees and advanced algorithms

Systems for processing and analyzing large amounts of data

April - May 2025

O The study of basic concepts in the field of big data and the fundamental principles of distributed data storage and processing

Projects

Reinforcement Learning for Breakout Game:

O Implemented Deep Q-Network (DQN) algorithm to train an agent to play Breakout

Steganography using Machine Learning:

- O Investigated three methods of information hiding in audio and images, including a neural network-based approach
- O Evaluated the robustness and efficiency of each method, focusing on data security and payload capacity