Mishan Aliev

Moscow

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Education

HSE University   2022 − 2024
Faculty of Computer Science, Master of Data Science
GPA: 9.67/10; percentile: 0%.

MIREA - Russian Technological University   2018 − 2022
Institute of Cybernetics, Bachelor of Applied Mathematics and Computer Science
GPA: 4.97/5.

Experience

Freelance   January 2020 — Present
Examples of work:
- Development of a FUSE-based pseudo-file system that displays the weather in the specified city (C++, Python).
- Build complex 3D shapes with texture mapping and scene customization using OpenGL (C++). Organize viewpoint movements using the keyboard.
- Study of data from the waves of monitoring the economic situation and health of the Russian population; identification of the individual with the highest wages using various ML models (Python).

Projects

Robin Hood hashing | *C++, OOP*   **GitHub**
Implementation of the Robin Hood insertion algorithm for hash tables with several examples.

Bourne shell implementation | *C++, Linux*   **GitHub**
Bourne shell implementation that provides synchronous command reading, parsing, and execution, variable assignment and expansion. In addition, the built-in "cd" command is implemented.

Procedural generation of the game map layout | *C++, OOP*   **GitHub**
Developed a city map model and implemented its procedural generation for each new game session.

Detection of chess pieces in images | *Python, PyTorch, Computer Vision* **GitHub**
Implementation of a pipeline for object detection of chess pieces in images.

Interpretable neural networks | *Python*   **GitHub**
Implementation and experiments with an interpretable neural network (Neural Formal Concept Analysis).

Skills

Languages	English (upper-intermediate), Russian (native).
Programming	Python, C/C++, SQL, Julia, MATLAB/Octave.
Tools	Git, Linux, Visual Studio Code.
Libraries	PyTorch, NumPy, Matplotlib, pandas, scikit-learn.

Activities

- Participated in the international symposium RGD32 (5 July 2022) and the international conference ESMED (4 August 2022) with the study "Kinetic Study of Spatial Spread of COVID-19 Waves". Following the symposium, a paper has been submitted for review.
- Successfully completed Deep Learning School from MIPT (1st degree diploma), Deep Learning course from Tinkoff Generations (top 3 in terms of course grades, certificate, my course repository).