# Shpileva Anastasiya

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February 2023 — April 2023

May 2021 — May 2021

2020 - 2023 I am actively studying several areas of mathematics. A wide variety of fundamental mathematical disciplines covered in depth, such as linear algebra, mathematical analysis, discrete mathematics, differential equations, methods of optimization, mathematical statistics. A good mathematical base gives an understanding of areas that relate not only to itself, but also to other industries. This helps you quickly get used to any professional field related to programming and mathematics

#### **SKILLS**

**Programming Languages** 

**Testing tools** 

**Machine Learning and Data Science libraries** 

Web programming Communication

Flask.

PyTorch, XGBoost, Sklearn, PySpark. Spring, Vue.is, MariaDB, Maven.

Java, Python, Bash, C++, JavaScript, ŁTFX.

English - B2, Italian - A2

#### **WORK EXPERIENCE**

## Intern analyst / Python

NVI-Research

• Time series analysis (tools: PyTorch, XGBoost).

- Data engineering (tools: PySpark)
- · Using "Flask" for testing.

# **TECHNICAL EXPERIENCE**

#### RUBIK'S CUBE GRAPHICAL USER INTERFACE / C++

ITMO University

• Implementation of a program simulating the assembly of a 3x3 Rubik's Cube.

• Application GUI Implementation (tools: OpenGL Utility Toolkit).

## **IMPLEMENTATION OF CODEFORCES / Java**

ITMO University

• Tools: Java, JavaScript, Vue.js, Git, Spring Boot.

• Development of a prototype of the Codeforces website, with basic functionality: registration, identification, writing comments, publishing posts, storing data of each user.

# A COURSE OF LECTURES ON MACHINE LEARNING FROM VORONSTOV K.V. / Python

February 2022 — April 2022

September 2022 — December 2022

Self-completion of the course

- Basic concepts and examples of applied problems, Linear classifier and stochastic gradient, Logical classification methods.
- Multidimensional linear regression, Nonlinear regression.
- · Linear Ensembles.

## **METHODS OF OPTIMIZATION / Python**

February 2023 — June 2023

ITMO University

- Tools: NumPy, MatPlotLib, PyTorch (for last laboratory)
- As part of the course, I implemented all effective varieties of gradient descent: Nesterov, Momentum, AdaGrad, RMSProp, Adam, as well as such quasi-Newtonian methods as Gauss-Newton, Powell Dog Leg, BFGS and L-BFGS.

#### **EDUCATION**

# **Applied mathematics and computer science**, ITMO University

**September 2021 - June 2025** 

# **ACTIVITIES**

Codeforces PCMS(discrete math)

September 2020 — Until now September 2020 — Until now

Kaggle

February 2022 — Until now

#### SOFT SKILLS

- Teamwork skills: I was a leader in the school debate team. Thanks to well-coordinated work and my good strategy, we won the city tournament.
- · Critical thinking.
- Ability to quickly memorize and process information.