Tatyana Babushkina

Work

Nov. 2020 – Present Sberbank, CIB, Data Analyst.

Data Science, Process mining

Building a process graph, identification of non-optimal and bottlenecks, DPA log processing (desktop process analytics), digital timing, clustering comments/complaints, time series analysis and forecasting Used: Python (pandas, numpy, matplotlib, seaborn, scikit-learn, XGBoost, nltk, keras, sberpm),

Power BI, SQL, Power Point

Education

Sept. 2020 - Present Moscow Institute of Physics and Technology, MIPT, Master student, 2th year.

Department of Innovation and High Technologies Field of study: Applied Mathematics and Physics

Specialisation: Machine Learning and Data Analysis, Banking Information Technologies (SberTech)

Sept. 2016 – July. Moscow Institute of Physics and Technology, MIPT, Bachelor student.

2020 Department of Control and Applied Mathematics

Field of study: Applied Mathematics and Physics

Specialisation: Computer Science, State Research Institute of Aviation Systems (FSUE SRIAS)

Supervisor: Mikhail Okhotnikov, FSUE SRIAS, mao@gosniias.ru

GPA: 7.01/10.00

Main courses:

- o Probability Theory & Stochastic Processes
- o Mathematical Statistics
- o Big Data
- o Machine Learning & Deep Learning
- o Image Processing in control systems
- o Optimization Methods

- o Functional Analysis
- o Calculus, Complex Analysis
- o Linear and Abstract Algebra
- o Algorithms, Discrete Analysis
- o Computational Mathematics
- o General and Theoretical Physics

Projects & practical experience

Aug. 2019-July 2020 Bachelor's thesis. Studying of reliability indicators of onboard software.

Algorithm development for assessing the complexity of testing software modules of onboard software and getting a hybrid metric using machine learning methods. Obtaining an indirect assessment of software reliability.

Used: C, Python (numpy, pandas, matplotlib, seaborn, scikit-learn, XGBoost and etc) Supervisor: Mikhail Okhotnikov, FSUE SRIAS

Oct-Nov. 2019 Application of the theory of complex systems to analyze and summarize information on the cost of researching a company's fields using machine learning methods.

Educational practice on digitalization of processing and interpretation of geological and geophysical information, Sirius & Gazpromneft STC

The algorithm for predicting the profitability of exploration work depending on the complexity of the field and the oil recovery factor in it.

Used: Python (numpy, pandas, matplotlib, seaborn, scikit-learn, XGBoost, PyTorch) Project mentor: Boris Belozerov, Gazpromneft STC

Technical skills

Scientific Libraries Python: NumPy, SciPy, pandas, matplotlib, seaborn, scikit-learn, XGBoost, nltk, keras, PyTorch

Operating Systems MacOS, Windows, Linux (only for educational projects)

Professional software SQL, Power BI, Jira, LATEX

Honors and awards

- 2016 Present Grant Recipient of the President of the Russian Federation, direction: science.
 - 2018 Absolute winner of Hackaton for commercialization within the All-Russian student's school on nanotechnology, Sochi.
 - 2015 3d place on IEPHO (Experimental Physics Olympiad) in the team competition of high school, Sochi.
 - 2015 Prize-winner on All-Russian Olympiad on Technology, St. Petersburg.
 - 2013 2016 Prize-winner on All-Russian Olympiad on Physics(region), Kirov.
 - 2015 2016 Prize-winner of different school olympiads in physics, maths: MEPhl Nuclear University Olympiad "Rosatom", Saint-Petesburg State University olympiad, MIPT's Olympiad "Phystech".

Extracurricular education

- Business accelerators: o Student accelerator SberStudent (by Sber & Stanford | Online) (finalists) Creation a platform Imperium for measurable collaboration between bloggers and businesses Role: data scientist, marketing specialist
 - o Creative Industries Accelerator (finalists) Also with the platform "Imperium"

- Online Courses: o Python for Data Analysis (by Sberbank corporate university)
 - o Machine learning in finance (by Sberbank corporate university)
 - o Mathematics and Python for Data Analysis (by Yandex and MIPT in Coursera)
 - o Supervised Learning (by Yandex and MIPT in Coursera)
 - o Unsupervised Learning (by Yandex and MIPT in Coursera
 - o Basics of statistics (by Bioinformatics Institute in Stepik)
 - o Neural Networks & Computer Vision (by Samsung Research Russia in Stepik) *In the progress*

Languages

English Upper-Intermediate (B2)

Français Elementary (A1)

Russian Native

Hobbies & extra activities

- Skiing, Cooking
- Mathematics tutor for schoolchildren
- Student travel organizer