

# ANASTASIIA POPOVA

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## WORK EXPERIENCE

### DATA SCIENCE INTERN

June 2023 – September 2023

University of Basel, Department of Biomedicine, Basel, Switzerland

- Completed a full circle of data analysis, including raw data processing, EDA, filtering, feature selection, and dimensionality reduction (alevin-fry, scanpy, muon) of human transcriptome data (CITE-seq, cell hashing).

### SCIENTIFIC RESEARCHER

February 2020 – February 2023

Russian Quantum Center, Skolkovo, Russia

- Researched and developed a new fast simulation method of optical quantum computers (Gaussian Boson Sampling, threshold detectors). Validated the approach against other methods and implemented potential applications of the optical computer simulators (dense subgraph problem, cryptography).
- Published open-source Python package for simulation of optical quantum computers (GitHub, C++ module integration).

### JUNIOR PROGRAMMER

July 2018 – February 2020

Russian Quantum Center, Skolkovo, Russia

- Executed end-to-end development of quantum Monte Carlo method for a tunneling impurity problem in ultra-cold mediums in Python (Cython, Scipy, NumPy, data visualization).
- The first author of the paper, published in a peer-reviewed journal from the first quartile in Condensed Matter Physics.

## EDUCATION

### Lomonosov Moscow State University

Graduated June 2020

*Top-20 QS World University Rankings for Natural Sciences 2018*

Faculty of Physics, Quantum Electronics Department

- Graduated with Honors MSc program, twice awarded a Merit-based Scholarship (Theoretical Physics and Mathematics Advancement Foundation, 2018-2020), winner of the competition of students' research papers (Mikhael Gorodetsky Prize, 2020).
- Relevant Coursework: Programming and Computer Science, Introduction to Artificial Neural Networks, Probability Theory, Theory of Random Processes, English for Professional Communication.

## TECHNICAL SKILLS

- **Python:** Numpy, Scipy, Pandas, Scikit-Learn, Scanpy, Querying in SQL and MongoDB
- **Data Visualization:** Published 2 scientific papers; participated in 5 international conferences.
- **Certificates:** Applied Data Science Lab, WorldQuant University, May 2023 | Artificial Intelligence Virtual Experience Program, Cognizant, July 2023.
- **Languages:** English (B2 technical), Russian (native).

*I am a fast and enthusiastic learner who enjoys applying and developing challenging algorithms and presenting the results in a concise and clear manner.*

## INTERESTS

- **Organizer and active participant** (had 15 presentations) of Journal Club in RQC.
- Art, healthy lifestyle, philosophy of physics, yoga, cycling, snowboarding