Mike Simonov

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📍 Torres, Brazil
🎂 25 years old: October 28, 1997
🌐 English (C1), Russian (native), Portuguese (A2), Spanish (A1)

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EDUCATION

- **Saint Petersburg Academic University** — *September 2020 - June 2022*
  Master of Science, Algorithmic Bioinformatics — GPA: 3.45 / 4.00

- **Novosibirsk State University** — *September 2015 - June 2020*
  Bachelor of Science, Chemistry — GPA: 3.16 / 4.00

EXPERIENCE

- **Anles Ltd** — *October 2021 - September 2022*
  Cheminformatics researcher, chemical technologist — 📍 Saint Petersburg, Russia
  – QSAR modeling, prediction of thermodynamic properties of small molecules
  – Multistage organic synthesis of polyfluorinated compounds
  – Purification of compounds via extractive distillation

- **Boreskov Institute of Catalysis** — *March 2018 - June 2020*
  Laboratory chemist, junior researcher — 📍 Novosibirsk, Russia
  – Organic synthesis and research of ionic liquids and homogeneous catalytic systems
  – Processing and interpretation of GC-MS and NMR spectra

PROJECTS

- **Benchmarking of methods for SARS-CoV-2 lineage abundance estimation** — *March 2023 - present*
  Bioinformatics research - publication under preparation, The Mangul Lab

  – Tools & technologies used: Python, bash, PiGx, HPC
  – Estimation of the abundance of SARS-CoV-2 lineages in gold-standard wastewater samples

- **Assessment of reproducibility of computational genomic tools** — *January 2022 - present*
  Bioinformatics research - publication under preparation, The Mangul Lab

  – Tools & technologies used: Python, bash, Pandas, FastQC, SAMtools, BWA, Bowtie, etc
  – Running and processing output from 8 genomic read alignment tools
  – Simulation of sequencing reads with different error profiles
  – Creating reproducible workflow with Python and bash scripting

- **Prediction of polymerase activity of Φ29 DNA polymerase** — *December 2020*
  Bioinformatics hackathon

  – Tools & technologies used: Python, Keras, BioPython, Scikit Learn
  – Development of an accurate ML-based algorithm aimed at the determination of a specific enzyme

TECHNICAL SKILLS AND INTERESTS

Languages: Python, R, Go, bash, HTML, CSS, TeX
Environments: Unix/Linux systems, HPC environments
NGS assays: RNA-seq, DNA-seq, single cell RNAseq, CHiP-seq
Bioinformatics Tools: Read aligners (BWA, ngm, etc), SV Tools (Manta, PopDel, BreakDancer), raw data QC, etc
Biochemical Techniques: Paper chromatography, TLC, column chromatography, spectrophotometry
Statistics: Hypothesis testing, regression modeling, high dimensional data analysis, machine learning
Databases: Knowledge of SQL and basic database architecture
Soft Skills: Teamwork, time management, adaptability, flexibility
Areas of Interest: Drug design, data science, computational biology

HOBBIES AND OTHER SKILLS

Sports: Chess (average level, ELO 1600), Tennis (intermediate player)
Musical instruments: Piano (7 years of music school)
Other activities: Video editing, hiking, reading non-fiction