

Uran Maimekov

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EDUCATION

- Rutgers University, RBHS** Newark, NJ, US
PhD degree in Bioinformatics and Biomedical Engineering Sep. 2022 – Present
- Moscow Institute of Physics and Technology, MIPT** Moscow, Russia
Master's degree in Bioinformatics Sep. 2019 – Aug. 2021
 - Thesis:** Graph-based assessment of the structural significance of aminoacid residues
- Moscow Institute of Physics and Technology, MIPT** Moscow, Russia
Bachelor's degree in Applied Math and Physics Sep. 2015 – Aug. 2019
 - Thesis:** Studying the influence of the antioxidants on mitochondria health under oxidative stress conditions

RESEARCH AND WORK EXPERIENCE

- Ayil Bank** Bishkek, Kyrgyzstan
Junior Data Scientist Jan. 2022 – Aug. 2022
Python SQL PowerBI Excel Data Analytics
 - Developed and maintained Power BI dashboards and reports for real-time data monitoring reducing generation time to hours
 - Developed pipelines for efficient data collection from different sources using Python and SQL
 - Provided technical expertise in data storage structures, data mining, and data cleansing
- Skolkovo Institute of Science and Technology, Skoltech** Moscow, Russia
Research Fellow, Skoltech iMolecule lab 2019 – 2021
Python R bash Gromacs PyMOL Structural Bioinformatics
 - Analyzed amino acid interactions in protein structures (PDB format) using a graph network representation
 - Modeled molecular dynamics simulations of protein trajectories using Gromacs
 - Developed the graph network pipeline for calculations and analysis in Python [\[github\]](#)
- Institute of Science and Technology Austria, ISTA** Vienna, Austria
Project: Particle picking optimization in cryo-EM images, Summer research intern summer 2019
Python bash TOPAZ crYOLO
 - Studied cryo-EM methods on image processing
 - Developed and optimized single particle picking processing on cryo-EM micrographs
 - Applied neural network-based TOPAZ and crYOLO software for particle picking

TEACHING EXPERIENCE

- Organized and reviewed Math and Physics Olympiads for high school students
- Mentored Bachelor students in Physics, Mechanics section

PUBLICATIONS

- Reducing the Concentration of Benzo(a)pyrene in the Soot Particles in Gas Phase by Using and Burning Water Fuel Emulsions**
K. Kemelov, U. Maimekov, D. Sambaeva, Z. Maymekov 2020

CONFERENCES, SCHOOLS AND COMPETITIONS

- Online webinar: Data Science application in Bioinformatics**
Invited by **The Cramer Project** company, Bishkek, Kyrgyzstan May, 2023
- 13th Annual SHP Student Research and Scholarship Symposium**, Newark, NJ
"Alternative Splicing Events Predict Overall Survival in Colorectal Adenocarcinoma" May, 2023
- Summer online school, "AI for medical images"**, by Innopolis University, Russia Jul. 2020
- Poster session "Particle picking optimisation in cryo-EM images"**, Vienna, Austria Aug. 2019
- 61st MIPT Scientific Conference**, Dolgoprudny, Russia
"Research the influence of the antioxidants on the length of the telomeres" Nov. 2018
- 46th IPHO**, International Physics Olympiad, India 2015
- Winner** of National Physics Olympiad, Kyrgyzstan (**1st place**) 2015
- 15th APHO**, Asian Physics Olympiad, Singapore 2014
- Winner** of National Physics Olympiad, Kyrgyzstan (**2nd place**) 2014

SKILLS

- Programming skills:** Python (sklearn, polars, pytorch), R, Git, HPC, bash, PowerBI
- Bioinformatics:** GSEA, dbGap, Survival analysis, PyMOL, statistics