Aidin Biibosunov

Curriculum vitae

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Education

Oct 2019 –
Dec 2022
M.S. in Mathematics, *Technical University of Munich*, Munich, Germany
Thesis: Deep Learning Empowered Analysis for High Content Screening (**paper**)

Sep 2017 –
Nov 2018
Completed coursework towards M.S., *Novosibirsk State University*, Novosibirsk, Russia
In program: Physics of atoms and molecules

Sep 2013 –
Jun 2017
B.S. in Physics, *Novosibirsk State University*, Novosibirsk, Russia
Thesis: High precision quantum chemical calculations of kinetics of primary reactions of thermolysis of nitroalkenes

Experience

Oct 2022 –
Modeling, *Differentia Bio*
Computational Modeling
Advisor: Ph.D Atefeh Kazeroonian

Mar 2022 –
Sep 2022
Research assistant, *Institute for Medical Microbiology, Immunology and Hygiene of TUM*
Machine learning (ML) methods in biology
○ worked with high dimensional data
○ associated Bulk RNA-Seq data with various clinical outcomes of experiments with mice
Advisor: Ph.D Atefeh Kazeroonian

Apr 2021 –
Aug 2021
Research assistant, *Helmholtz AI*
Deep learning in High Content Screening (HCS) analysis
○ reproduced *these* results
○ used metric learning to classify microscopy cell images
Advisor: Ph.D Tingying Peng

Jan 2021 –
Mar 2021
Internship, *Helmholtz Zentrum München*
Contributed to the implementation of scGen model into *scArches*
Advisor: Mohammad Lotfollahi

Nov 2020 – **Computational Pathology**, *Technical University of Munich*

Seminar at the department of mathematics
○ read and presented the *paper*
○ reproduced the results
Advisor: Sophia Wagner

Oct 2016 – **Lab assistant**, *Voevodsky Institute of Chemical Kinetics*
Nov 2018 *and Combustion*, Laboratory of Mechanisms of Reactions
○ designed and performed experiments (computer simulations)
○ wrote reports
Advisor: Vitaly G. Kiselev

▬▬▬ Skills

○ Programming Languages: Python (NumPy, Pandas, PyTorch), R
Java, Matlab, SQL
○ Tools: Git, Emacs, LaTeX

▬▬▬ Teaching

Oct 2022 – **Teacher**, *School 84*, Bishkek
Nov 2022 I taught 8th grade physics in the first quarter - Thermodynamics
(**link**)
○ prepared homeworks and tests
○ wrote class notes

▬▬▬ Conferences

Apr 2018 – **56th International Scientific Student Conference**
Theoretical study of the new thermal decomposition channels of
aliphatic and aromatic nitro compounds

Apr 2017 – **55th International Scientific Student Conference**
Theoretical study of the kinetics and mechanisms of thermolysis of
new high-energy compounds

▬▬▬ Awards & Scholarships

○ Sep 2013: Full-tuition scholarship with stipend for undergraduate studies
○ Feb 2013: Russian Board of School Olympiads, Prize Winner in Physics

▬▬▬ Languages

○ English: Fluent
○ German: Beginner
○ Russian: Fluent
○ Kyrgyz: Native