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 (*link*)

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

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 – Nov 2018 **Lab assistant**, *Voevodsky Institute of Chemical Kinetics 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

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