

# Aidin Biibosunov

## Curriculum vitae

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## Education

**Oct 2019 – M.S. in Mathematics**, *Technical University of Munich*,  
**Dec 2022** Munich, Germany

**Sep 2017 – Completed coursework towards M.S.**, *Novosibirsk State*  
**Nov 2018** *University*, Novosibirsk, Russia

In program: Physics of atoms and molecules

**Sep 2013 – B.S. in Physics**, *Novosibirsk State University*, Novosibirsk,  
**Jun 2017** Russia

Thesis: High precision quantum chemical calculations of kinetics of  
primary reactions of thermolysis of nitroalkenes

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## Experience

**Mar 2022 – Research assistant**, Institute for Medical Microbiology, Im-  
**Sep 2022** munology 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 – Research assistant**, Helmholtz AI

**Aug 2021** 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 – Internship**, Helmholtz Zentrum München

**Mar 2021** 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 and**

**Nov 2018** *Combustion*, Laboratory of Mechanisms of Reactions

- designed and performed experiments (computer simulations)
- wrote reports

Advisor: Vitaly G. Kiselev

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## Skills

- Programming Languages: Python (NumPy, Pandas, PyTorch), R, Java, Matlab
- Tools: Git, Emacs, L<sup>A</sup>T<sub>E</sub>X

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## 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

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## Awards & Scholarships

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

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## Languages

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