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: CellDeathPred: a deep learning framework for ferroptosis and apoptosis prediction based on cell painting

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 – **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

Other work experience

Dec 2022 – **Feb 2023**	**MoveGreen: Satellite data**, *MoveGreen*
	Worked on a project for **MoveGreen** for satellite data processing and methane monitoring in Bishkek
	○ obtained and decoded methane observation data from satellites (Sentinel-5P Copernicus, TROPOMI)
	○ created **tables**, **maps**, and graphs based on processed satellite data

Skills

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

Teaching

Sep 2025 –	**Mentor in Data Science**, *AI Academy*
	I'm providing mentorship in Data Science for beginners: university students and industry professionals from other fields
	○ guiding listeners through practical exercises and project-based learning
Sep 2025 –	**Math Teacher**, *Novopokrovka middle school 3*, village Novopokrovka
	As part of the **Teach for Kyrgyzstan** program
Sep 2024 – **Aug 2025**	**Math and Physics Teacher**, *Ber-Bulak middle school*, village Ber-Bulak
	I joined *Zamanbap Mugalim* (**Teach for Kyrgyzstan**) program aimed at improving educational equity and teacher leadership in rural schools. Teach for Kyrgyzstan is a part of the global network *Teach For All*
	○ focused on supporting underperforming and challenging students
	○ conducted sociometric and referentometric assessments in the class

Sep 2023 – **Introduction to Programming**, *Compass College of Art*
Feb 2024 *& Design*, Bishkek

I designed and taught a beginner-level *Introduction to Programming* course integrating Python with applied physics examples (**link**)
- prepared lecture notebooks and problem sets
- graded assignments and provided feedback

Conferences

Oct 2025 – **Symposium on ICT and AI in education for Central Asian countries, Iran, and Pakistan (UNESCO)**

Participated in the discussion on how AI and ICT can empower higher education institutions with digital competencies and skills. Organized by the UNESCO Regional Office in Almaty

Aug 2025 – **Climate Education Bootcamp**

Countries across Central Asia face similar climate challenges: shrinking glaciers, water shortages, desertification, floods, air pollution. So the goal was to strengthen climate leadership and regional cooperation

Apr 2018 – **56th International Scientific Student Conference**

Theoretical study of the new thermal decomposition channels of aliphatic and aromatic nitro compounds

Awards

- **Oct 2025**: Winner of the **Dive Into Silicon Valley** competition.
  My product **Aqcha**: expense tracker and receipt scanner app. Prize was a 14-day trip to Silicon Valley for mentorship, expert guidance and visits to top companies
- **Feb 2013**: Russian Board of School Olympiads, Prize Winner in Physics

Languages

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