Aibek Kappassov

akappassov@gmail.com | akappassov.github.io | aibek-kappassov

Education

Imperial College London — **London, UK**
MSc Bioinformatics and Theoretical Systems Biology - Merit — *Oct 2022 - Nov 2023*

Purdue University — **IN, USA**
BSc Mathematics and Statistics - 3.45/4.00 — *Jun 2019 - Dec 2021*
- Thomas Arai Scholarship, Department of Mathematics

Research Experience

University of Oslo — **Norway**
Research Intern, Greiff Lab — *Apr 2025 - Present*

Computational Antibody Design

Imperial College London — **Hybrid**
Graduate Researcher, Dr. Robert Endres' Group — *Sep 2023 - Aug 2024*

Turing Pattern Network Design
- Designed and implemented mathematical models of molecular networks using deterministic and stochastic approaches for pattern formation analysis
- Wrote Python scripts to run large-scale simulations leveraging HPC throughput
- Developed a framework that informed the design of synthetic patterns in gene regulatory networks

Work Experience

Nucleate — **Hybrid**
Research and Communications Intern — *Apr 2025 - Present*

Emerging Chapter
- Conducted market research on the European biotech industry and contributed to ecosystem reports to support strategic initiatives for the emerging chapter
- Assisted in organizing biotech events, helping build connections between academia, startups, and VC
- Supported chapter's social media presence, creating content to promote events, attract participants, and build strategic relationships

Stealth Biotech Startup — **London, UK**
Co-founder — *Jun 2024 - Dec 2024*

AI-Powered Drug Discovery Platform
- Worked with an interdisciplinary team to develop and deploy generative AI models
- Accepted to the Purdue Innovates accelerator program for startups
- Conducted customer discovery interviews; established relationships with biotech hubs and VC firms across the US, UK, and Europe

Publications

1. *Optimal network size for most robust Turing patterns*. H. Shaberi, **A. Kappassov**, A. Matas-Gil, R. G. Endres. **Scientific Reports**, 2025
2. Manuscript in preparation, 2025

Skills

Dry-lab
- **Platforms and Environments**: Linux, High-Performance Computing, Google Colaboratory
- **Programming Languages**: Python (PyTorch, Biopython), Bash
- **Protein Design**: RFDiffusion, ProteinMPNN, AlphaFold2, PyMOL

Other
- **Languages**: English, Russian, Turkish
- **Interests**: Life Science Communication, Decentralized Science, Entrepreneurship