Kerim Kochekov

Github: www.github.com/kerimkochekov
Languages: Python, C/C++, Java

Email: kerim.kocekow@gmail.com
Personal website: www.kochekov.com
Technologies: Pytorch, Git, Docker, MongoDB, Node.js

EDUCATION

- **Hong Kong University of Science and Technology, PhD** Sept 2022 – Aug 2026 (expected)
  Research area: Parameterized algorithms and Programming languages.
    - Awarded scholarhip from the Hong Kong PhD Fellowship Scheme (HKPFS) after being selected as one of the best and brightest 300 students from around the world for 2022.

- **Innopolis University, BSc in Computer Science (Data science)** Aug 2018 – Aug 2022
  Thesis work: Image-Text Matching using Encoder and Decoder architecture. *Thesis grade: 5.0/5.0*

EXPERIENCE

- **Getir** Remote
  Backend Engineer *March 2023 - Present*
    - **Development of D&C algorithm**: As a member of the optimization team, developed novel clustering algorithm to reduce the complexity of routing problems while improving their solvability with Google OR-Tools.

- **Morphy Capital** Istanbul, Turkey
  Quantitative Researcher *May 2022 - August 2022*
    - **Feature engineering**: Developed a dynamic feature selection algorithm in **Python** for my investigated models.
    - **ML model development**: Constructed model for BIST-30 using **Catboost** (gradient boosting tree algorithm) and outperformed the baselines of the company by **9%** with the help of model and feature selection algorithm.

PROJECTS

- **Conference paper: Exploiting the Sparseness of Control-flow and Call Graphs for Efficient and On-demand Algebraic Program Analysis**: Artifact made available at Zenodo.
    - Paper accepted to top-venue conference of SPLASH 2023 called Object-oriented Programming, Systems, Languages, and Applications (OOPSLA): https://doi.org/10.1145/3622868

- **Coverage measure of Java programs**: @Github
    - Used library by **Soot** to transform a **Java** program into bytecode and measure the statement, branch, and line coverage on the test suites generated by **Randoop**. The maximum difference between the coverages on generated test suites was at most **5%** with existing popular algorithm by **EclEmma** and my implemented algorithm.

- **Distributed File System (DFS)**: @Github
    - Implemented the DFS together **RPyC** library of **Python**. Configured replication strategy similar to **Hadoop FS**.
    - Deployed a project to **AWS** to test scalability and fault tolerance while achieving containerization with **Docker**.

- **Distributed Online Judge**: @Github

AWARDS

- **ACM-ICPC Northern Euroasia 2018, 2020 and 2022**: 3rd-degree diplomas
- **Meta Hackercup 2021 3rd round**: ranked 342nd place over 34584 participants (top 1%)
- **Google Hash Code 2019**: ranked 101st place over 6647 teams (top 2%)
- **International Olympiad in Informatics 2018 ($\sim$100 countries took part in)**: Bronze medal
- **Asian-Pacific Olympiad in Informatics 2017 ($\sim$34 countries took part in)**: Bronze medal

LEADERSHIP / ACTIVITIES

- **inzva/algoleague** Remote
  Lead and Problem Setter *August 2021 - Present*
    - **Problem setting**: As the lead of the organizing team for Online Programming Contest (OPC) 2022, set innovative algorithmic problems for OPC 2021, 2022 and going set inovative problems for OPC 2023, which is considered the biggest competitive programming competition in **Turkey**. Report of OPC 2022.
    - **Testing**: Other than setting problems, I tested the constraints, test data and suggested solutions of competition problems set by other setters with the unit and regression tests on **algoleague** platform.