# Begench Hangeldiyev

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https://begench-han.github.io/

#### **EDUCATION**

## Korea Advanced Institute of Science and Technology (KAIST) August 2020 – Present B.Sc. in Computer Science (Minor: Chemical & Biomolecular Engineering) Daejeon, South Korea RESEARCH EXPERIENCE June 2022 – Present **Research Intern** Institute for Basic Science (IBS), Data Science Group Daejeon, South Korea • Proposed new antibody-specific models for protein sequence design using graph attentive neural networks. Proposed novel loss functions for protein sequence design given antibody-specific characteristics. • Supporting the development of an AI-based framework for antigen-conditioned antibody design. **Research Intern** April 2022 – June 2022 KAIST, Neuro-Machine Augmented Intelligence Laboratory (NMAIL) Daejeon, South Korea • Collaborated on the development of a deep learning model capable of operating with a wide range of robot grippers enabling the manipulation of objects with different shapes. **PROJECTS** Neural Radiance Fields | Python Fall 2023 Korea Advanced Institute of Science and Technology(KAIST) PointNet Model | Python Fall 2023 Korea Advanced Institute of Science and Technology(KAIST) CUDA Implementation of Convolutional Layers | Python, C, CUDA Fall 2023 Korea Advanced Institute of Science and Technology(KAIST) **Neural Machine Translation** | *Python* Spring 2022 Korea Advanced Institute of Science and Technology(KAIST) **Semantic Segmentation** | *Python* Spring 2022 Korea Advanced Institute of Science and Technology(KAIST) **PUBLICATIONS** [1] B. Hangeldiyev, A. Rzayev, A. Armanuly, L. F. Vecchietti, M. Cha\*, H. Kim\*, "Antibody Sequence Design With Graph-Based Deep Learning Methods" presented at the Korea Software Congress (KSC), Jeju, South Korea, 2022.

# Honors and Awards

Gold Medal in National Chemistry Olympiad, 2019, Turkmenistan Gold Medal in Amity International Chemistry Olympiad, 2019, New Delhi, India Bronze Medal in National Chemistry Olympiad, 2020, Turkmenistan

### **SKILLS**

Languages: Turkmen (Native), English (Fluent), Turkish, Russian

**Programming Languages**: Python, JavaScript, Scala, C, CUDA, Java, HTML5, CSS **Python libraries (Deep Learning, Data Science)**: PyTorch, Numpy, Pandas, Scikit-learn

Web Programming: ReactJS, HTML5, CSS