# Sagyn Jumadildayev

## Experience

#### nFactorial Incubator

Almaty, Kazakhstan

Full-stack Developer Internship

June 2023 - Aug 2023

- Selected among 4,100+ submitted applications from Central Asia, where only 108 students were accepted
- In the course of 10 weeks, developed an AI-based web app Freestyler using React, TailwindCSS, FastAPI, OpenStreetMap, D3.is, OpenAI API and Yahoo GeoPlanet data
- Project selected for Demo Day among 20 from 108 other projects

# "Nazarbayev Intellectual Schools Olympiads and Science Fairs" Telegram channel

Remote

October 2023 - Present

- Admin• Post about recent achievements and honours of NIS students in various competitions and information about upcoming competitions
  - Channel has over 2000 followers
  - Organize gathering events for NIS students during various competitions

## Personal Projects

#### Freestyler - LINK

An AI-based web app

June 2023 - Aug 2023

- During the 10 weeks of nFactorial Incubator, implemented an AI-driven tour guide system with a 3D globe interface capable of providing and responding to location-specific questions
- Participated in nFactorial Incubator Demo Day (top 20 projects out of 108)
- Accepted to Microsoft for Startups Founders Hub, receiving \$2,500 of OpenAI API credits and other perks
- Got 3rd place at INFOMATRIX-ASIA (among 450 participants)

## L-Tromino Tilings

Number Theory and Combinatorics Research

June 2021 - June 2023

- Project won the first award in 8 years for Kazakhstan at Regeneron ISEF 2023 (Mu Alpha Theta Second Place Nomintation)
- Established the recurrence relations and congruences for the number of ways to fill the n × 7 grids with L-Trominos, given that one cell might either be present or missing
- Developed an efficient algorithm using **Dynamic Programming** and **Bitmasks** in C++

#### Achievements

- 2nd place award and \$1,000 prize at Regeneron International Science and Engineering Fair 2023, the world's largest international pre-college science competition
- 1st place award at Technocup Competitive Programming Olympiad organized by VKontakte
- 1st place at Kazakhstan National Science Fair for my Mathematics Research
- 1st place at Kazakhstan National Junior Olympiad in Competitive Programming.
- 2nd place at Eurasian Team Olympiad in Informatics among 321 teams of 3 people from Shanghai Cooperation Organization nations.
- Demo Day Participation in nFactorial Incubator, among 20 out of 4,100+ people from Central Asia
- 3rd place in INFOMATRIX-ASIA for my project Freestyler, among 450 participants from Hong Kong, Kazakhstan, Kyrgyzstan, and Turkmenistan
- Second-place winner in Almaty which is given to top 2 among 31 teams, and Global nominee in NASA International Space Apps Challenge, given to 587 among 5500+ teams from 152 countries.

#### Technical Skills

Programming Languages: Javascript, Python, C++

Developer Tools & Technologies/Frameworks: React, TailwindCSS, Qt, Pygame, Bootstrap, Flask, SQL, SQLAlchemy, FastAPI, MongoDB, AWS, Git, npm, Tensorflow, Keras, Matplotlib, scikit-learn, LangChain, Seaborn Languages: Kazakh (Native), Russian (Native), English (proficient), French (intermediate)