

# Makhambet Otep kali

## Personal details

- Makhambet Otep kali  
 utepkali81@gmail.com  
 +7 705 553 4286  
 Moskovskaya St 16  
090000 Uralsk  
 February 17, 2007  
 Мужской  
 Kazakh

## Skills

Python programming	★★★★★
Competitive programming on C++	★★★★★
AI & Machine Learning	★★★★★
Game Development on PyGame	★★★★★
Backend Development on Django	★★★★★
Data Analysis (Python, Yandex Data Analysis)	★★★★★
Arduino programming	★★★★★
Circuit Design	★★★★★
3D modelling & 3D printing	★★★★★
IoT systems	★★★★★
Hardware Software integration	★★★★★
Automated systems	★★★★★
Pitching	★★★★★
Business planning	★★★★★

## Education

- High school** Sep 2019 - Present  
Nazarbayev Intellectual School of Physics and Mathematics in Uralsk, Uralsk  
Graduated as Valedictorian (Student of the Year), GPA 5.0/5.0
- Awarded "Altyn Belgi" — the highest academic honor in Kazakhstan
  - IELTS: 8.0 | SAT: 1510 (730 R&W, 780 Math)
  - Full scholarships from:
    - KAIST (Electrical Engineering major) – Ranked #24 globally in Engineering
    - HKU (Electrical Engineering major) – Ranked #13 globally in Engineering
    - PolyU (Electrical Engineering major) – Ranked #17 globally in Engineering
  - Coursework (equivalent to A-Levels under Cambridge collaboration):
    - Advanced Physics – A\*
    - Advanced Computer Science – A\*
    - Advanced Mathematics (Calc I, Calc II, Statistics) – A\*
    - History of Kazakhstan – A
    - Kazakh Language – A

## Employment

- Private English Tutor** Sep 2023 - Present
- Provided personalized English lessons to middle and high school students.
  - Specialized in preparing students for international exams, including IELTS and SAT.
  - Developed customized learning plans based on student levels, goals, and learning styles.
  - Helped students significantly improve their English fluency, grammar, and academic writing.
  - Focused on holistic growth — vocabulary building, pronunciation, and confidence in speaking.

## Extracurricular activities

- Founder, Main Mentor, Event Organizer, Financier – STEM Community "Orta"** Oct 2023 - Present  
NIS Uralsk, Uralsk
- Founded the school's first STEM club, growing to 100+ members (1/6 of school population).
  - Led workshops on 3D printing, AI development, Arduino programming.
  - Boosted school's STEM competition success from 7 to 19 qualifiers.
  - Individually mentored 3 teams for 28 days (1 lesson/day, 1-2h/lesson) on project work, leading them to top-5 placement in international Caspian StartUp-2024, #1 in national "Shapagat" inventors' competition, and Silver in National Robot Olympiad. It was an experimental teaching, which tested a curriculum designed by myself, and its success inspired me to teach more students
  - Held a fund-raising fair to raise money to organize Business Incubator and the Pizza Pitch of the STEM Community "Orta". Sold groceries and pastries, raising 40 000 tenge in school
  - Organized the first-ever Business Incubator for 50 students (grades 7-10) over 2 weeks, covering startup fundamentals, business planning, marketing, and financial strategies.

Team Leadership	● ● ● ●	<ul style="list-style-type: none"> <li>Facilitated hands-on workshops where students created and presented their startup ideas, providing mentorship on problem-solving, market research, and financial management.</li> </ul>
Event Planning & Organization	● ● ● ●	<ul style="list-style-type: none"> <li>Organized the first-ever "Pizza Pitch" event in school, where 14 teams of 50 students showcased innovative ideas, judged by professionals including a STEM enthusiast, a startup founder from the UAE, and a Front-End freelancer.</li> </ul>
Public Speaking & Presentation	● ● ● ● ●	<p><b>Founder &amp; Electrical Engineer &amp; 3D Designer, Tazalyq AI</b> <span style="float: right;">Jan 2024 - Present</span></p> <p>Tazalyq AI - an innovative waste sorting bin designed to automate waste classification, efficiently separating waste into categories and reducing the need for manual sorting.</p> <ul style="list-style-type: none"> <li>Developed an AI-powered waste sorting bin (95% accuracy) with a 3D-printed prototype.</li> <li>Presented to the CEO of an Autonomous Educational Organization "Nazarbayev Intellectual Schools"</li> <li>Collaborated with the Deputy Mayor of Uralsk and Oral Taza Service LLP for city-wide launch.</li> <li>Secured 1 international and 2 national competition wins.</li> </ul>
STEM Teaching	● ● ● ● ●	<p><b>Co-founder &amp; AI Developer, DFAN-01 Agricultural AI Drone</b> <span style="float: right;">Sep 2022 - Dec 2024</span></p> <p>DFAN-01 is an advanced agricultural AI-powered drone designed to optimize crop growth and farming efficiency. It features automated pesticide application, weather measurement sensors, and an AI system detecting plant diseases.</p> <ul style="list-style-type: none"> <li>Developed an agricultural AI-drone for effective crop growth.</li> <li>Achieved 78% AI accuracy and fully automated pesticide usage.</li> <li>Test-launched in 10 farms and secured \$1,200 in investments.</li> <li>Mentored by CEO of AGINEER and QAZAQEDU.COM.</li> </ul>
Innovative Thinking	● ● ● ● ●	<p><b>Space Enthusiast &amp; Lead Engineer, Atlas Space Research Project</b> <span style="float: right;">Jan 2024 - Apr 2024</span></p> <p>Atlas is an AI-powered satellite prototype designed for space waste detection and research. It integrates advanced AI algorithms for identifying space debris, an eco-fuel system for sustainable energy, and a robotic arm for remote manipulation. The project aims to address the growing issue of space pollution by enhancing debris tracking and management.</p> <ul style="list-style-type: none"> <li>Engineered an AI-powered satellite prototype for space waste detection and research.</li> <li>Integrated AI waste detection, eco-fuel system, and robotic arm.</li> <li>Praised by the Vice Minister of Education and won 1 international competition.</li> </ul>
Languages		
Kazakh	● ● ● ●	<p><b>Advanced Python Student &amp; Backend Developer</b> <span style="float: right;">Sep 2020 - Feb 2024</span></p> <ul style="list-style-type: none"> <li>Completed a 2-year advanced Python programming course and a 3-month Web Development intensive from Yandex.</li> <li>Built full-stack applications using PyQt, Flask, and Django.</li> <li>Continuously applying skills in research projects and AI development.</li> </ul>
Russian	● ● ● ●	<p><b>Competitive Programmer &amp; Olympiad Medalist</b> <span style="float: right;">Sep 2022 - Jun 2023</span></p> <ul style="list-style-type: none"> <li>Two-time national bronze medalist at the National Informatics Olympiad.</li> <li>Competed among 70+ top qualifiers from different regions, specializing in advanced algorithms and data structures with C++.</li> </ul>
English	● ● ● ●	<p><b>Startup Program Graduate &amp; Tech Entrepreneur</b> <span style="float: right;">Sep 2022 - Present</span></p> <ul style="list-style-type: none"> <li>Graduated from AstanaHub (Central Asia's leading international tech hub) StartUp School &amp; Academy and the Jaiq Incubation Program.</li> <li>Built a strong network with industry mentors and officials.</li> <li>Collaborated with the Deputy Mayor of Uralsk and local CEOs on tech initiatives.</li> </ul>

**Non-Profit Summer School Engineering  
Teacher, NIS Uralsk Summer Program**

Jun 2024 - Jul 2024

- Designed and taught whole Arduino programming course for 10-20 students of 5th and 6th grade at the Nazarbayev Intellectual School's summer program (40 lessons in total).
- Created curriculum that covers fundamental electronics, circuit design and microcontroller programming and organized workshops to provide students with hands-on experience for their intensive learning.
- Students successfully completed devices such as motion-detecting doors and obstacle recognition systems, which demonstrates practical application of STEM concepts.

**Data Science Researcher – Yandex Data  
Analysis Intensive Program**

Oct 2023 - Dec 2023

- Analyzed global heating, ventilation and air conditioning system data to study temperature comfort patterns across countries.
- Created strategic market recommendations using Python.

**Game Developer & National Winner – NIS  
STEAM GAME JAM 2023**

Sep 2022 - Jun 2023

- Developed a 2D shooter game using Python and Pygame.
- Created intelligent NPC algorithms, winning 1st place among ~100 competitors nationwide.

**"A Kind Heart" Project, West Kazakhstan  
Specialized Library**

Sep 2021 - May 2023

Recorded 79 audiobooks of kazakh literature and created tactile books for visually impaired children.

## Achievements

---

- **2nd Place + 125 000 KZT prize award**, international competition Caspian StartUp 2024
- **2nd Place**, International Space Research Competition "Gylым Alemin Ashamyz" 2024
- **2nd Place + 100 000 KZT prize award**, international competition Caspian StartUp 2023
- **2nd Place + Astana IT University tuition grant**, the Republican competition of innovative projects on "Smart City Technologies" 2024
- **Silver medal**, National Stage of World Robot Olympiad 2024, Future Innovators Senior category
- **2nd Place**, Republican Science Research Competition "Zhas Al-Farabi" 2024
- **3rd Place + 50 000 KZT**, National "Eco-Hackathon" 2024
- **Absolute Winner**, National GameDev Competition "NIS STEAM GAME JAM 2023"
- **International Finalist**, INFOMATRIX ASIA 2023
- **3rd Place**, National Informatics Olympiad conducted by NIS (2023)
- **3rd Place**, National Informatics Olympiad conducted by NIS (2022)