Almaty,
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GHOLIBJON QASOBOV

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SKILLS/INTERESTS

- Programming Languages: Python, C++, MATLAB
- Robotics: ROS, Nav2, Gazebo, Computer Vision, Machine Learning
- Technical Writing and Reporting: Overleaf, Latex
- Electronics and Hardware skills: Raspberry Pi, ESP32, Nvidia Jetson Orin Nano, OpenCR
- **NATIVE TAJIK SPEAKER; FLUENT IN RUSSIAN AND ENGLISH (IELTS 7.0/9.0)**

PROFESSIONAL EXPERIENCE

AlmaValley – Borealis Laboratory
- Recorded Raspberry Pi tutorials for the **Uni-X platform** to support educational initiatives.
- Completed impactful projects, including:
  - **Semi-Autonomous Water Drone for Trash Collection with Computer Vision**: Designed and implemented an environmentally focused drone using Nvidia Jetson Orin Nano and RealSense D435i by ros_serial communication.
  - **Unitree Go2 Voice Control in Kazakh Language**: Developed a voice-command system using an offline LLM and ROS2 Humble for local language support.

Robotics Research Assistant
- Conducted research on autonomous navigation and manipulators using **ROS**, **C++**, and **Python**.
- Key projects: Implemented **ArUco and Apriltag detection** for robotic arm functionality and enhanced autonomous elevator operations.
- **Currently involved** in **ongoing research**: "Development of an Automated Maintenance Inspection System in Multi-Floor Residential and Industrial Complexes Using a Mobile-Legged Robot Navigating Through Elevators."

ACTIVITIES AND ACHIEVEMENTS

KazEnergy Eco-Shell Competition (2024): *Recognized for the innovative design and implementation of a Semi-Autonomous Water Drone for trash collection.*

Electrical Engineering Olympiad (2024): Demonstrated excellence in problem-solving and electrical engineering concepts at Satpayev University.

ITFest 2024: Showcased robotics projects, including the **Tic-Tac-Toe Playing Robot**, which engaged many attendees who enjoyed competing against it. Also served as a judge in Robo-Football competition.

Research Paper Contributor: Collaborated on the research paper, "Development of a Mobile Robot Platform for Smart Warehouse Management System", published in the *Herald of Kazakh-British Technical University*.

EDUCATION

Kazakh-British Technical University (KBTU) – Almaty, Kazakhstan *Expected May 2026*
School of Information Technologies and Engineering - *Bachelor of Engineering*
***GPA:* 3.33/4.00**
Concentrations: Electronics and Mechatronics, Automation and Control, Robotics
Relevant Coursework: Algorithms and Data Structures, Foundations of Electrical Engineering, Electronics and Digital Design, Theory of Linear and Non-Linear Control Systems, Autonomous Mobile Robots, Industrial Robot Operations, Robotics in Manufacturing, Introduction to Machine Learning, PLC Programming.

Secondary General Educational Institution #54 - Dushanbe, Tajikistan *September 2011 - May 2022*
- ***GPA: 4.96*/5.00**