

# Bekmukhamed Tursunbayev

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## PROJECTS

*Infomatrix Asia international computer project competition - Gold Medal*

2018 - 2019

### Phebruus

- Led a team of 3 people to develop a robot to collect garbage from pools using Python code to integrate sensors
- Created algorithm to locate garbage with TensorFlow object detection based on TACO dataset of images of litter
- Utilized OpenCV library to display images and Protobuf package to serialize data
- Implemented online video streaming from camera and manual control of the robot in the real-time
- Calculated and drew an optimal design in CorelDraw to make it buoyant and to increase its maneuverability on water, as well as to isolate the battery and to improve its life

*Infomatrix Asia international computer project competition - Silver Medal*

2017 - 2018

### EcoStage

- Managed a team of 3 people to build a hardware control system to purify and humidify the air, and reveal quality of air
- Built a circuit based on Arduino with LCD display, sensors, fan and ultraviolet lamp, and designed air filter
- Wrote C++ code to read data from sensors to display it and clear and/or humidify the air

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## SKILLS

PROGRAMMING & TOOLS: Python, C++, OpenCV, CorelDraw

HARDWARE: Arduino, RaspberryPi

LANGUAGES: Kazakh, Russian, English

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## EXPERIENCE

*Calculation Team*

2022 - Present

### Engineers Without Borders chapter

Chicago, IL

- Structural calculating and designing an Urine-Diverting Dry Toilet for a community in Yucka - Bolivia, Sharing features and Meeting with a community on a monthly basis, Presenting project to raise funds (2700\$)

*English Language Tutor*

2019 - 2019

### Forward Education

Nur-Sultan, Kazakhstan

- Delivered English language assistance to 30 fellow students, Prepared them for IELTS and SAT exams, Served as a model for students in techniques and strategies for planning short- and long-term goals

*Team Leader*

2019 - 2019

### World Para-Powerlifting Championship

Nur-Sultan, Kazakhstan

- Led team of 10 volunteers at award ceremony, was a liaison between volunteering committee and volunteers, distributed roles, kept track of schedules, flags, medals, and prizes

*Founder*

2018 - 2019

### Asar

Nur-Sultan, Kazakhstan

- Founded mentoring club for 40 children from an orphanage, Collaborated with orphanage representatives, guided team of 9 students, Organized Mathematics, Physics, C++ and English classes

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## EDUCATION

ILLINOIS INSTITUTE OF TECHNOLOGY, CHICAGO, IL

Expected May 2024

### Bachelor's in Computer Science, GPA: 3.5/4.0, Dean's List

Relevant Courses: Introduction to Machine Learning, Introduction to Algorithms, Discrete Structures, Computer Organization and Assembly Language Programming

- Student Government Vice President of Events, Eta Kappa Nu Delta Chapter member, Member of Engineers Without Borders chapter, Member of Chess Club

PENNSYLVANIA STATE UNIVERSITY, STATE COLLEGE, PA

2020 - 2021

### Bachelor's in Computer Science, GPA: 4.0/4.0, Dean's List

Relevant Courses: Data Structures and Algorithms, Object-Oriented Programming: Fundamentals & Data Structures

- Member of Coding club