

# ABYLKAIYR OMAR

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## EDUCATION

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- Alem School of Programming | April 2022 – current
- BACHELOR OF MECHANICAL ENGINEERING – NAZARBAYEV UNIVERSITY – Astana, Kazakhstan | class of 2021

## INTERNSHIPS AND EXPERIENCES

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- Internship at Andersen-Lab, Minsk | December 2022 – April 202  
*Developed back end API for payment platform using Go language, concurrent programming.*
- Junior Mechanical Engineer at PSI Engineering, Almaty  
*Creating 3D Models of Construction side of Aktogay GidPolimet | Preparing sketches to output*
- CAMO Engineer (Инженер отдела Поддержания Летной Годности) at Kazakhstan Aviation Industry(KAI) |  
*Planning, defect determination, AMTAC with Airbus | August 2021- November 2021.*
- Research assistant at NAZARBAYEV UNIVERSITY in the Department of Engineering and Digital Sciences  
*Drone construction and published paper | 2020-2021*
- Summer internship at EvroKristall  
*assistant of chief engineer; performed repairing processes and diagnostics of the conveyer | 2020*
- Summer school at Bell International. St Albans, England  
*"Advanced Physics and Math courses" | 2014*

## SOFTWARE and HARDWARE PROJECTS

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- HTML, CSS(Figma, Sass, Bootstrap), JS(basic React)
- Golang Algorithms, Goroutines, REST API, CRUD Operations  
*Web forum:user registration, post creation, like, comment*  
*Netcat: tcp/udp connection, concurrency*

- Database: Sqlite, MySql(basic requests)
- University Time-Table Generator program by using C++ | 2018
- Code for generating NACA airfoils via *Matlab* | 2019
- Mathematical modeling of the complex physical objects using *Matlab Simulink and Wolfram Mathematica* | 2019-2020
- Advanced user of 3D modeling software *SolidWorks, Rhyno* | 2019
- Usage of the *Arduino Uno* for PID tuning of the quadcopter | 2019
- *ANSYS Workbench*: Static Structural, CFD, Fluent, Explicit Dynamics | 2018-2021
- Advanced Aerodynamic Study of the Wind Turbine using *OpenFOAM* | 2020-2021

## RESEARCH

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- Implementation of the hybrid electric vehicles in Kazakhstan | 2017
- Simulation and parametric design investigation of the compliant hybrid dry clutch | 2020
- Conference paper: "Development of a control algorithm for a quadcopter." | Published in 2021 via Elsevier  
(<https://www.sciencedirect.com/science/article/pii/S1877050921000041>)
- Conference paper: "Effect of End-of-Project Life Recovery Cost in the feasibility of PV power plants: the case of Burnoye-1, Kazakhstan." | Published 2023  
Link:  
([https://www.researchgate.net/publication/362129405\\_The\\_Circular\\_Economy\\_Approach\\_to\\_Evaluating\\_End-of-Life\\_Cost\\_Alternatives\\_of\\_Solar\\_PV\\_Panels\\_The\\_case\\_of\\_Burnoye-1\\_Kazakhstan](https://www.researchgate.net/publication/362129405_The_Circular_Economy_Approach_to_Evaluating_End-of-Life_Cost_Alternatives_of_Solar_PV_Panels_The_case_of_Burnoye-1_Kazakhstan))

## LANGUAGES

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Kazakh (native), Russian (fluent), English (fluent)