ASLAN TOLEUBAY

+7(707) 134-00-02 ⬦ Almaty, Kazakhstan

# EDUCATION

**Master of Computer Science**, University of Tsukuba 2021- Expected 2023

**Bachelor of Engineering in Electrical and Electronic Engineering**, Nazarbayev University 2016 - 2020

# SKILLS

**Technical Skills** Python (Keras, TensorFlow), Embedded C, LaTex, MATLAB, GIT, Scrum, Confluence, Agile Dev

**Skills** Scrum, Confluence, Agile Development, LeanDS

# EXPERIENCE

**ML engineer/Data scientist** Aug 2020 - Currently

VEON – Beeline Kazakhstan *Almaty, Kazakhstan*

* Working on Deep Learning models’ optimization and Computer vision models’ improvement. Implemented attention network to liveness aware face recognition system in TensorFlow, which increased the accuracy of the base model by 3% without compromising the model’s computational time

**Cofounder and CTO** Dec 2019 – Aug 2020

Startup QT Analytics *Nur-Sultan, Kazakhstan*

* Proposed a driver behavior classification for better customer service and comprehensive risk assessment based on Machine Learning algorithms using sensor data taken from mobile phone.
* Agreed to launch a pilot project with Astana LRT, however, due to pandemic the project was canceled

**Research Assistant** Dec 2019 – Aug 2020

Neuromorphic Hardware and AI group *Nur-Sultan, Kazakhstan*

* Worked with Deep Learning Networks. Optimized and developed the Binarized Neural Network (BNN) in TensorFlow for its application in hardware circuits, which allows the power reduction for up to 10-15% of dropped neurons without compromising the performance accuracy
* Published a book chapter called “Getting Started with TensorFlow Deep Learning”

**Visiting Research Student** Dec 2019 – Dec 2019

University of Tsukuba *Tsukuba, Japan*

* Was one of 3 applicants selected from Kazakhstan. Shared experience in the field of AI, Technology and Science

**Visiting Research Student** Jul 2019 – Aug 2019

KAIST Control Laboratory ”Ctrl Lab” *Daejeon, South Korea*

* Implemented Reinforcement Learning Proximal Policy Optimization algorithm to make a humanoid robot walk and run in the gym environment;

# PUBLICATIONS

**Neural lightweight hardware cryptography for computationally restricted devices.** Final year capstone project.

**Analog Brain-inspired Computing - Stochastic Dropout Crossbar Neural Nets.** Second author, Journal paper submitted to IEEE TBioCAS. Current status: Awaiting reviewer scores.

# Daily Transformer Electric Vehicle Charging Capacity Prediction Using a Recurrent Neural Network.

Fourth author, Journal paper submitted to Energies. Current status: Under review.

# EXTRA-CURRICULAR ACTIVITIES

* **Head of Organizing committee of IEEE student chapter** Visited KTZ railway company field and identified problems that can be solved using AI. Organized competition, where the best solutions were awarded valuable prizes (300000 KZT, Laptop, Airpods) by KTZ. Provided further possibility of commercialization of the projects in cooperation with NURIS. As a result, received the certificate of Appreciation from IEEE Kazakhstan for contribution for the development of IEEE student branch and for being an outstanding student mentor.
* **Co-founder and president of Eco-Vehicles Club** Organized information sessions about Shell Eco marathons and popularized it among students. Conducted university-wide SOLIDWORKS software courses. As a result, NU students participate in Shell Eco marathon contest each year.