

# Beksultan Tuleev

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**Gitfolio:** <https://beksultantuleev.github.io>

**GitHub:** <https://www.github.com/beksultantuleev>

**Birthdate:** 21.10.1995



## Profile

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I am an experienced Data Scientist and Data Analyst, who is passionate about automation and efficiency. Open-minded towards cutting-edge technologies and certified Linux user. Proactive team player with a focus on collaboration.

## Work Experience

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04/2022 – 03/2023 **NUR Telecom LLC**, Kyrgyz Republic

### Data Scientist and Data Automation Engineer

- Improved ML model prediction of Active Customers for the next fiscal month with 99% recall and precision
- Developed NN-based time-series forecasting of Active Customers' number in Python (TensorFlow) with visualization in Tableau that accurately predicted the future patterns of the customers' behaviour, providing valuable insights for business decision-making and strategy formulation
- Developed anomaly detection ML models for fraud detection of resource consumption, utilizing unsupervised learning methods
- Designed and implemented a versatile library to facilitate connection and manipulation of Oracle databases, leveraging efficient algorithms for seamless handling of regular and spatial data
- Developed a Chatbot for remote monitoring and management of Windows scheduled tasks and job management in Oracle. Bot vastly reduced the effort and time for control and maintenance from 30 to 3 minutes on average
- Implemented an automatic failure recovery mechanism for Windows machines, which allows failed scheduled tasks to be automatically restarted in the event of external failures. The mechanism improved the reliability and significantly reduced downtime from 50 to 5 minutes on average

06/2021 – 10/2021 **The Openwork Partnership**, the United Kingdom

### Data Scientist Intern

- Developed Multi-Output ML models for predicting customers with a high likelihood of purchasing protection products in different income segments with AUC of more than 85%

- Reduced the number of features required for accurate predictions (from approx. 150 to 10) through the use of RFE, resulting in a more efficient and cost-effective model
- Achieved a 88% in precision and recall scores after feature selection and model calibration, indicating a better balance between true positives and false positives/negatives in the model's predictions

02/2019 – 09/2019 **Mercy Corps**, Kyrgyz Republic

#### Procurement and IT assistant

- As a Procurement Assistant at Mercy Corps, I sourced and purchased kitchen equipment for a food security project in rural areas, improving access to healthy food for children. My work supported the successful implementation of the project and contributed to long-term community development

08/2018 – 01/2019 **United Nations Development Programme**, Kyrgyz Republic

#### Project Management Assistant Intern

- As a Project Management Assistant at UNDP, I provided administrative support for a project aimed at protecting snow leopards and their habitats. I coordinated logistics and assisted with reporting, contributing to the successful implementation of the project and promoting sustainable development in the communities we served

## Education

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09/2019 – 03/2022 **University of Trento**, Trento, Italy

Degree: Master of Science in Data Science

Thesis: Non-line-of-sight Detection And Mitigation Using Machine Learning For Indoor Positioning Ultra-wideband System

09/2017 – 12/2018 **OSCE Academy**, Bishkek, Kyrgyz Republic

Degree: Master of Arts in Economic Governance and Development

Thesis: The Impact of Trade Openness on Technical Efficiency in the Agricultural Sector in Post-Soviet Countries 1990-2014

09/2013 – 06/2017 **American University of Central Asia**, Bishkek, Kyrgyz Republic

Degree: Bachelor of Arts in Economics

Thesis: Quantitative Economics Research, The Application Of Dantzig's Simplex Algorithm On The Micro-construction Company

## Skills

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Programming Languages	Python, Java, C#, SQL, R
Frameworks & Libraries	TensorFlow, sklearn, pandas, numpy, Aiohttp, Angular, WildFly
Databases	PL/SQL, PostgreSQL, InfluxDB, ClickHouse
Tool & Services	Git, GitLab, MQTT, Jira, Docker, WSL, Linux, MS Office, PowerBI, Tableau, ML

## Projects

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### Visualization of Reference Signal Received Power in Tableau

This project uses Tableau to visualize NetMAX's signal strength data, displaying the average RSRP of each location on a map. This helps identify areas with poor signal coverage, allowing network operators to take action and improve the user experience. Overall, the project offers a simple and effective solution for analyzing and optimizing network coverage

*Technologies used: Tableau, Python, Oracle, GeoPandas*

### LOS/NLOS detection and mitigation

This project leveraged Ultra-Wideband (UWB) technology to enhance indoor positioning accuracy by training a neural network model to detect Non-Line-Of-Sight (NLOS) signals caused by obstacles such as walls and furniture. The model was combined with filters to conditionally ignore NLOS measurements. The project's results have potential applications in healthcare, retail, logistics, and other industries that rely on location-based services

*Technologies used: Raspberry Pi, WSL, Python, C, UWB, TensorFlow*

### Real-time Location Tracking and Trilateral Wi-Fi Positioning

Developed a real-time positioning system utilizing WiFi signals and Trilateration, with a visualization in Matplotlib and a proximity warning feature for social distancing. This solution provides effective real-time positioning and crowd management, while prioritizing public health and safety

*Technologies used: WSL, Node-red, Python, JavaScript, Wi-Fi, MQTT*

### Application of Ultra-Wideband System in Unmanned Aerial Vehicle (UAV)

The system provides an application of Ultra-Wideband (UWB) technology to unmanned aerial vehicles (UAVs) for accurate positioning in indoor environments. The project utilized a Kalman filter to combine the Inertial Measurement Unit (IMU) of the UAV with an external UWB tag, ensuring centimetre-level accuracy for indoor aerial handling. By providing precise positioning, the UWB system enabled small UAVs or mini drones to perform complex tasks with greater accuracy, enhancing their capabilities in indoor environments

*Technologies used: Raspberry Pi, WSL, Python, MQTT, UWB*

## Languages

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English	Advanced (C1)
German	Basic

München, 11.05.2023

*Beksultan Tuleev*