SHYNGYSKHAN ABILKASSOV

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EDUCATION

Nazarbayev University, Astana

August 2017 - May 2021

BSc in Robotics and Mechatronics, Minor in Computer Science.

Overall GPA: 3.76, Top 5%

School of Engineering and Digital Sciences Student Council Representative

WORK EXPERIENCE

Google Summer of Code, JdeRobot

May 2019 - August 2019

Open Source developer

- · Developed indoors localization, goal navigation, item pick-and-place logic, and resting behaviour for full scale autonomous task completion for warehouse robot
- · Improved local navigation task performance for robot in complex interior environment. Robot reaches desired destination **2 times faster** than previous implementation
- · Integrated proper transformations for sensor frames, introduced proper ROS topics messaging and naming, and integrated SLAM, AMCL, Navigation stack ROS packages into the Gazebo robot model

ALARIS Laboratory

December 2018 - September 2019

Research Assistant at Autonomous Truck development project

- · Integrated ROS messaging for LiDAR, Camera, IMU, GPS for remote data acquisition and control of simulation truck model
- · Generated a map based on Odometry, LaserScan data using **SLAM algorithm**
- · Implemented data access for non-ROS environment through sockets and Flask REST service for visualization of on web interfaces.

PROJECTS

Driver Distraction Level Estimation

Implemented and trained the CNN that classifies the activity of the driver and estimates the possible risk level. Alerts the driver to take action if risk is high

SearchForMe

Telegram chat-bot on Python which searches and scrapes information from Google, Yandex, Mail.ru, and Rambler. SearchBot constantly monitors all current ratings and informs users about changes in result positions for their inputs.

ACHIEVEMENTS

1st place in HackNU International Hackathon 2019, BTS Digital case

2nd place in Astana Innovations Challenge, Smart Services

2nd place in HackNU 2018, ZeroToOneLabs case

Fellow recipient of Bertelsmann Data Science Scholarship

Completed Data Science, Machine Learning (Ng), Neural Networks and Deep Learning courses

SKILLS

 $\begin{array}{lll} \textbf{Languages} & \text{Python, Java, C/C++, JavaScript(Node.js)} \\ \textbf{Tools \& Technologies} & \text{PyTorch, Keras, Git, ROS, OpenCV, MATLAB} \\ \end{array}$

Databases NoSQL, GraphQL, Firebase