Bolat Tleubayev

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EDUCATION

Katholieke Universiteit Leuven (KU Leuven)   Leuven, Belgium
Advanced Master of Science in Artificial Intelligence Grade: 69.25% (Cum laude)   July 2021

Nazarbayev University   Nur-Sultan, Kazakhstan
Bachelor of Science in Robotics and Mechatronics GPA: 3.37   May 2019

WORK EXPERIENCE

Software developer, Open Summer of Code and imec   Jul 2021
- Developed native iOS augmented reality application that highlights intended route and displays hints on recognition of QR markers for visually impaired people [**ARKit, UIKit, Swift**]
- Developed user positioning and routing capabilities for iOS and Android applications with Google Maps and OpenStreetMap [**Flutter**]

RESEARCH EXPERIENCE

Master's Thesis, KU Leuven   Oct 2020 - Jul 2021
- Standardised volumetric face shape data from 3D scanners for **22 participants** from 5 viewpoints at Medical Imaging Research Center of UZ Leuven hospital [**MATLAB, meshmonk**]
- Developed 3D face shape reconstruction algorithm from 2D photos. It combines both 3dmm and deep learning based approaches. Such method allowed to reconstruct face shapes within average **accuracy of 1.55 mm** [**MATLAB**]

Research assistant, Nazarbayev University   Aug 2019 - Dec 2020
- Conducted robot-assisted sessions for children suffering from severe ASD and ADHD for data collection. Interviewed therapists and parents for experiment design and evaluation
- Developed Ubuntu tablet software for joint dysgraphia research with EPFL CHILI Lab. Resulting software was used to record dynamic handwriting features of **200** primary school children
- Developed rules for trilingual text-to-speech engine creation and data collection [**tensorflow**]

TECHNICAL SKILLS

Programming: Python (OpenCV, matplotlib, Keras, scikit-learn, pandas), MATLAB (+Simulink), Swift (UIKit+SwiftUI, ARKit, MapKit), Flutter, SQL (mySQL), NoSQL (Firebase)
Hardware: Arduino, BeagleBone Black (on Python), Wacom tablet, NAO and Pepper robots

LEADERSHIP AND AWARDS

Team leader, Delaware Student Game   Mar 2021
Managed and represented a team of artificial intelligence program students on the coding competition by delaware BeLux. Our team won **the third place** with proposed industrial applications of computer vision and augmented reality [**ARKit, Swift**]

CTO and developer, ABC startup incubation   Oct 2020
Developed a mobile social network application for fashion industry. Supervised technical and design decisions. Our team won the competition landing ~**4,700 USD** funding [**Flutter, NoSQL**]

Presenter, International Conference on Human-Robot Interaction 2020   Mar 2020
Won **the best demo** award on the ACM/IEEE International Conference on Human-Robot Interaction 2020 in Cambridge, United Kingdom for video presentation "CoWriting Kazakh: Learning a New Script with a Robot - Demonstration"

SELECTED PUBLICATION

Asselborn, T., Johal, W., Tleubayev, B., Zhexenova, Z., Dillenbourg, P., McBride, C. and Sandygulova, A., 2021. *The transferability of handwriting skills: from the Cyrillic to the Latin alphabet*. **Nature** partner journal: science of learning, 6(1), pp.1-11.