Aidar Yessembayev

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Personal essay

Dear Sir/Madam,

My name is Aidar Yessembayev and I am writing a personal essay in order to express my interest in studying at the Master of Science in Data Science at Nazarbayev University.

Here is the list of …

* I was involved in different research projects:
* **Secured Smart Housing for Elderly People**

The project aims to establish a new platform to improve security and level of comfort of the house. The idea is to give full control to the user to monitor and regulate his/her own house, and at the same time give access to the system to perform sensible decisions on its own. The whole system consists of several subsystems, such as door security, a platform for comfortable living and a remote environment. Door security is responsible for intruder detection and reporting. It uses face detection and recognition. The part for comfortable living creates convenience by predicting through machine learning algorithms whether the user should power on/off simple appliances. The remote environment allows the system to monitor sensor data and control various appliances of the house through a mobile application built using React Native technology.

* **Feature Selection for Silhouettes: Skeleton-Contour-Deep Learning**

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* **Financial forecasting and building a diversified portfolio**

In this project, different machine learning algorithms are tested in order to decide which algorithm provides the highest accuracy for financial time series forecasting. After that, the diversified portfolio is built, where 10 companies, that show the best growth and, at the same time, are uncorrelated, are selected from S&P 500 index.

* I turned my projects into start-ups:
* **Rizamyn Mobile App**

Rizamyn is a cashback service that gives you back a percentage of your final purchase price as a bonus to the next purchase. The whole project was built using React Native technology.

* **Key Word Mobile App**

Key Word is a messenger where all users have unique and interesting account names. The whole project was built using Android technology

* I took part in different internships:
* **nFactorial Incubator**

nFactorial Incubator is a 7-week app development bootcamp to produce mobile app engineers. I participated twice in this internship, first time I studied deeply how to build Android mobile applications and second time how to build React Native mobile applications.

* **Lemon Tree Mobile App**

**CHTO TAKOE LEMON.** I mostly worked with xml files. After internship, I started to work in this company.

* I have good work experience:
* **Nazarbayev university, Research Assistant,** April 2019 – Present

I am working on the project Smart House (synergy of IoT, robotics, machine learning, mobile development and computer vision) under the tutelage of an experienced professor Adnan Yazici.

* **Dom Invest Real Estate Agency, Software Engineer,** March 2019 – May 2019

I helped to integrate a CRM system based on Bitrix24 technology. Bitrix24 is a software service, providing a company with a full range of team working and social networking means. Also, I built a website using Wix technology.

* **Duken me Mobile App, React Native mobile developer,** August 2018 – December 2018.

I helped to build a cross platform mobile application Duken me using React Native technology. Duken me is a baby products online store in Kazakhstan. I mostly worked as a front-end mobile developer.

* **Lemon Tree Mobile App, Front end Android mobile developer,** August 2016 – December 2016.

I helped to build a mobile application Lemon Tree using Android technology. ASASSSASA I mostly worked with xml files.

In future, I want to be a part of a research and development department and be able to not only apply my knowledge on practice but also improve the existing systems in the field of data and computer sciences. I am interested to build a system that will help to improve the financial literacy and develop the financial sector of my country. To do so, the system will predict the future price of the indexes and bonds by analysing huge data of macroeconomic parameters and build a diversified portfolio. It will be a synergy of fields of Data Science, Machine Learning and Finance. Additionally, I am curious to build and develop Robotic Process Automation that allows anyone today to configure computer software, or a "robot" to emulate and integrate the actions of a human interacting within digital systems. It will be a synergy of fields of Computer Vision and Artificial Intelligence. I truly believe that Master of Science in Data Science at Nazarbayev University can give me an opportunity to fulfil my goals. Therefore, I will devote myself to studies and put all my efforts to make a great contribution to the NU community.

Thank you for considering my application.

Sincerely, Aidar Yessembayev.