Shyngyskhan Abilkassov

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EDUCATION

Nazarbayev University   Astana, Kazakhstan
Bachelor of Science in Robotics and Mechatronics; GPA: 3.79/4.0; Top 1%   *Expected May 2021*

Relevant Coursework: Microcontrollers, Electrical and Electronic Circuits, System Dynamics and Modelling, Signals and Sensing, Programming in C, Performance and Data Structures using Java, Algorithms, Differential Equations, Probability

SKILLS

- **Languages**: Python, Java, MATLAB, C++, JavaScript (NodeJS)   **Technologies**: GitHub, ROS, GraphQL, Solidworks, Simulink
- **Libraries**: OpenCV, Pandas, Numpy, TensorFlow, BeautifulSoup, Scikit-Learn, Jupyter

EXPERIENCE

Astana Laboratory for Robotic and Intelligent Systems (ALARIS)   Astana, Kazakhstan
Research Assistant   *December 2018 - Present*

- **"KAMAZ"**: Autonomous truck based on "KAMAZ" chassis project
  * Developed 3D truck simulation model integrated with ROS.
  * Developed obstacle avoidance C++ ROS node, which controls the simulation model using data from lidar ROS topic.
  * Implemented control through ROS services as well as data acquisition from Velodyne VLP-16 lidar and OpenMV camera module through ROS topics that are subscribed and controlled by other machine responsible for data analysis and autonomous control. Additioanlly, have implemented data access for non-ROS environment through sockets and Flask REST service for visualization.
  * Stack: Python, C++, ROS.

ZeroToOneLabs.com   Almaty, Kazakhstan
Mobile Developer   *June 2018 - Aug 2018*

- **"Ashyq Hattar"**: Mobile application
  * Developed and published both IOS and Android application in Kazakh "Ashyq Hattar" for ease of elder population for image search and sharing. Ashyq Hattar won one of the top places on the Demo Day among 80 other apps, and was mentioned in Forbes, Informburo, and BNews.
  * Stack: NodeJS, Java, React Native, Firebase.

Zerde National Infocommunication Holding   Astana, Kazakhstan
Software Engineer Intern   *May 2018 - June 2018*

- **Architectural web portal of Kazakhstani Government's information systems**:
  * Implemented user activity monitoring web service in "Architectural web portal of Kazakhstani Government's information systems" for detection of suspicious activity. Designed and created both REST service and admin interface.
  * Developed user-interface for search and export of documents using Elastic Search in MongoDB database.
  * Stack: Java (Spring Framework), NodeJS, HTML, CSS, AngularJS, NoSQL MongoDB.

PROJECTS

- **ai.ball**: Conversational Telegram chat-bot. ai.ball uses Naive Bayes algorithm for NLP, Yandex SpeechKit for audio recognition and synthesis and multiple Flask microservices for continuous data scraping and image-as-response generation. Winner of HackNU2019 hackathon. Stack: Python,
- **NU students Face Recognition System**: Student face recognition system based on FaceNet pre-trained model. "Transfer learning" principle been used to train FC layers on scarce training data. Stack: Python, Git
- **SearchBot**: 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. Stack: Python, Git, Pandas, BeautifulSoup, Amazon AWS.
- **VOTE!**: Decentralized Student Government Election Application. 2nd place in HackNU hackathon in âĂIJBlockchainâĂĬ section. I have written smart-contract on Solidity, tested it on Ethereum TestNet, and created intuitive web interface. Stack: Solidity, NodeJS, HTML, CSS.

ADDITIONAL EXPERIENCE & ACHIEVEMENTS

- Winner of **HackNU 2019 International Hackathon** for *BTS Digital company* case
- 2nd place at **Astana Innovations Challenge Hackathon**
- **Country Executive in Kazakhstan** at Central Asian Youth Network, established and supported by the OSCE
- Completed **Machine Learning by Stanford University, Deep Learning by deeplearning.ai** courses on *Coursera*
- Got 5/100 at **nFactorial Incubator Demo Day 2018** projects