ABAY AKTURIN

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EDUCATION

Master of Science in Computer Engineering   **Jun. 2020 - Present**
New York University
- **GPA: First Semester**

Relevant coursework: Data Structures, Operating Systems, Intro to Machine Learning, Machine Learning for Cybersecurity, Real-time Embedded Systems, Internet Architecture and Protocols

Non-degree, Computer Science   **Jun. 2019 - Apr. 2020**
Oregon State University
- **GPA: 3.10**

Bachelor of Science in Chemical Engineering   **Aug. 2013 - May 2018**
The Ohio State University
- **GPA: 3.0**

EXPERIENCE

Fullstack Engineer   **Jul. 2019 - Jun. 2020**
iSate   *Nur-Sultan, Kazakhstan*
- Adapted the .NET version of Tesseract OCR for Microsoft SharePoint with the estimated daily workload of 3000 pages
- Integrated a third-party PDF Converter with a daily document flow of 3000 pages and localized its UI
- Refractored the code for 10 modules between the two versions of Microsoft SharePoint
- Collaborated with 5 colleagues on the negotiations with 8 foreign IT companies

Process Engineering Technician   **Oct. 2018 - Apr. 2019**
Flex   *Austin, TX*
- Designed a data pipeline using Python and SQL to generate 25 reports on the manufacturing projects
- Assisted in raising the manufacturing production rate by 15% for the Hewlett Packard Enterprise contract by optimizing the manufacturing process with the lean production principles
- Supervised 20 manufacturing technicians and 3 production lines with an estimated released product total value of 1.5 million USD after 3 months

PROJECTS

Embedded fitness against COVID: using a STM32 micro-controller for workout
Real-time embedded systems
- Used C, Assembly and PlatformIO to program a STM32 board and its accelerometer
- The device detects situps, pushups, jumping jacks and squats and can be placed anywhere on the body
- The device indicates what specific exercise has occurred with the 4 LEDs and keeps count for all four exercises

Symbolic music genre transfer with CycleGAN
For Intro to Machine Learning class, I re-created the results of the original research paper and extended them
- CycleGAN-based model performs music genre transfer between Classic, Jazz and Pop with 95% accuracy on test data
- Trained the model on 20 Rock music samples and achieved accuracy of 85% on test data

Website for computer hobbyists
abaydemo.herokuapp.com
- Users can start their own accounts, post custom PC configurations, delete them, and leave comments
- Express, NodeJS, Passport, MongoDB, REST API
- Authentication and user data storage

SKILLS

- **Languages:** Python, JavaScript, C++, C#, Java, Shell Scripting
- **Frameworks:** .NET, ReactJS , Django, PlatformIO
- **Databases:** MySQL, MongoDB
- **Machine learning:** TensorFlow, scikit-learn, CycleGAN
- **Development tools and methodologies:** Agile, Scrum, Git, Matlab