ABAY AKTURIN

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EDUCATION

Master of Science in Computer Engineering **Jun. 2020 - Present**
New York University
- **GPA: 3.83**

Relevant coursework: Data Structures & Algorithms, Intro to Machine Learning, Machine Learning for Cybersecurity, Deep Learning, Parallel & Customized Computer Architecture for ML, Real-time Embedded Systems

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

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

EXPERIENCE

Fullstack Engineer **Jul. 2019 - Jun. 2020**
iSate *Nur-Sultan, Kazakhstan*
- Adapted the .NET version of Tesseract OCR for SharePoint with the estimated daily workload 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 using 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

Memorize
Developing apps for iOS
- Completed a project from Stanford's online course in iOS development and added my own features
- Memorize cards, match them, and alternate between different themes

Backdoor detector against trojan attacks on deep neural networks
Machine learning for cybersecurity
- Designed a STRIP-based backdoor detector against trojan attacks and trained it on the YouTube Face dataset
- Achieved an attack success rate with the minimum of 93.5% for targeted attacks, 81.32% for untargeted attacks, and 31.8-71.44% for multi-targeted attacks

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 gives the user feedback through its LEDs

Website for computer hobbyists
https://computergeeks.herokuapp.com
- Express, NodeJS, Passport, MongoDB, REST API
- Users can create their own accounts, post custom PC configurations, delete them, and leave comments

SKILLS

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