Abay Akturin

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EDUCATION

New York University   **June 2020 - December 2021**
M.S. Computer Engineering   New York City, New York
- **GPA:** 3.78

Relevant coursework: Data Structures & Algorithms, Operating Systems, Intro to Machine Learning, Machine Learning for Cybersecurity, Deep Learning, Real-time Embedded Systems

Oregon State University   **June 2019 - April 2020**
Post-graduate studies, Computer Science   Corvallis, Oregon
The Ohio State University   **August 2013 - May 2018**
B.S. Chemical Engineering   Columbus, Ohio

SKILLS

- **Languages:** Python, C++, JavaScript/TypeScript, Java, C#, Swift
- **Technologies & Frameworks:** React, .NET, PyTorch, Tensorflow, Django, Node, MongoDB, PostgreSQL

PROFESSIONAL EXPERIENCE

Bytedance Inc.   **May 2021 - August 2021**
Machine Learning Engineer Intern   Mountain View, California
- Incoming summer intern at TikTok.

iSate   **July 2019 - June 2020**
Fullstack Software Engineer |C#, .NET, Tesseract, Sharepoint, Javascript   Nur-Sultan, Kazakhstan
- Adapted the .NET version of Tesseract OCR for SharePoint with a daily workload of 3K+ pages and UI localization.
- Optimized and refactored code for 10 modules across multiple versions of the Microsoft Sharepoint.
- Collaborated with 5 colleagues on negotiations with 8 foreign IT companies in building internal tooling software.

Flex   **October 2018 - April 2019**
Process Engineering Intern |Python, MySQL, Django   Austin, Texas
- Designed a data pipeline using Python and SQL to automatically generate reports on manufacturing projects.
- Raised the manufacturing production rate by 15% for the Hewlett Packard Enterprise manufacturing process.
- Supervised 20 manufacturing technicians and 3 production lines with an estimated released product total value of $1.5M USD after 3 months.

PROJECTS

NeuralProtect
Neural Network Backdoor Trojan Attack Detection |Tensorflow, YouTube API, SciPy
- 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 and 81.32% for untargeted attacks.

WFH Workout
Home Workout Embedded Microcontroller |C++, Assembly, STM32 microcontroller, PlatformIO
- Utilized STM32 microcontroller board accelerometer to track real-time workout data.
- Implemented on-device detection of sit ups, pushups, jumping jacks and squats.
- Developed real-time user feedback system utilizing STM32 microcontroller LEDs.

Computer Geeks
Website for computer hobbyists |Express, NodeJS, Passport, MongoDB, REST API
- Users can create their own accounts, post custom PC configurations, delete them, and leave comments.
- Authentication and user data storage.