

# Abay Akturin

(917) 609 2617 • abayakturin@gmail.com • abayakturin.com

## EDUCATION

### New York University

#### M.S. Computer Engineering

- GPA: 3.83

June 2020 - Present

New York City, New York

**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

### Oregon State University

#### Post-graduate studies, Computer Science

June 2019 - April 2020

Corvallis, Oregon

### The Ohio State University

#### B.S. Chemical Engineering

August 2013 - May 2018

Columbus, Ohio

## SKILLS

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

## PROFESSIONAL EXPERIENCE

### iSate

#### Fullstack Software Engineer | C#, .NET, Tesseract, Sharepoint, Javascript

July 2019 - June 2020

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

#### Process Engineering Intern | Python, MySQL, Django

October 2018 - April 2019

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

### Memorize

#### Memorization card game for iOS | Xcode, Swift

- Memorize cards, match them.
- Supports 6 different themes.

### 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