Ikram Gabiyev

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EDUCATION

AMHERST COLLEGE
BA in Computer Science and Physics
Expected, May 2022 | Amherst MA
Cum. GPA: 3.95 / 4.0
Major GPA: 3.98 / 4.0

COURSEWORK

UNDERGRADUATE
Data Structures
Algorithms
Machine Learning
Computer Systems
Networks
Computer Architecture
Probability in Computing
Intro to Computer Science II
Linear Algebra
Signals and Noise Lab

SKILLS

PROGRAMMING
Proficient
Java • Javascript • Kotlin • Git
Exposed to:
Python • C • Assembly • MySQL
React • React Native • Node
Shell • p5.js • Processing
Tensorflow • Keras • scikit-learn

EXPERIENCE

RISEUP | Head of Android Development
Feb 2021 - Present | Pierre, South Dakota

- Developed the app's Feed, Sign Up and Sign In pages in **Android Studio** using **Kotlin** and **XML**
- Repaired app's *lifecycle* problems by implementing *ViewModels* and *LiveData* as a part of the **MVVM** architecture to constantly update the relevant UI components on the screen
- Maintained **Firebase's** *Realtime Database* and *Firestore* services to handle registration of new users
- Increased the speed of image and video loads by approximately 150% by implementing a **Convolutional Neural Network (CNN)** based compression algorithm using **TensorFlow.js** and Firebase's **Cloud Functions** service

AMHERST COLLEGE | Computer Science Department Peer Tutor, Physics TA and Grader
Jan 2020 – May 2020 | Amherst, MA

- Held one-on-one tutoring sessions with a student in Introduction to Computer Science I course, resulting in student's overall grade increasing by more than one letter grade
- Facilitated two one-hour help sessions each week and graded homework of 18 students for the lab section of PHYS 109 (Energy) course

PROJECTS

LOUNDR APP | Javascript, React Native, Firebase, Stripe

- Developed a mobile app (both for Android and iOS) that facilitates transfer of funds between users in the CIS region by integrating **Stripe** and local payment processors' services into a **React Native** application (github.com/IQ01660/loundr)
- Utilized **Firebase API** in the app and distributed app's demo version to nearly 300 people, with more than 200 authenticating and had over $320 handled in transactions

DATA LINK LAYER SIMULATION | Java

- Used **multi-threading** in **Java** to design a simulation of Data Link Layers transferring data on a network segment through Physical Layers and a low noise medium that randomly flips bits sent from a host
- Increased the detection of errors in data transfers by an average of 400% by using **Cyclic Redundancy Checks** instead of parity bits, as measured by comparing the bytes in sender's buffer to those in receiver's output
- Programmed the *Flow Control* between the two Data Link Layers by implementing the **Stop-n-Wait ARQ**

SIGN LANGUAGE CLASSIFIER | Python, Tensorflow, scikit-learn

- Utilized *Principal Component Analysis* for dimensionality reduction, increasing the 10-fold cross validation and test scores of a **Support Vector Machine** pipeline by approximately 30% when classifying images of letters in American Sign Language
- Trained a majority-vote ensemble consisting of a **Convolutional Neural Network**, a **Multilayer Perceptron Model** and the SVM pipeline to increase classifier's test data accuracy to 91%