

Mustafo Kurbonov

Atlanta, GA

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Education:

Georgia Institute of Technology | Bachelor of Science in Computer Science

May 2024

- **Dean's List:** Spring 2020 - Spring 2024
- Minor in Economics
- **Coursework:** Machine Learning, Artificial Intelligence, Computer Vision, Stats, Database Systems, OOP

Skills:

Languages: Python, Java, JavaScript, C#, SQL, HTML/CSS

Tools: Jupyter Notebook, Pandas, NumPy, PyTorch, TensorFlow, Flask, PostgreSQL, SpringBoot, JUnit

Other: Git, Controller Area Network (CAN), Unity3D, Simulink, Unix, ArcGIS, Postman

Foreign Languages: English, Russian, Uzbek, Turkish (comprehension)

Awards: Deloitte Innovation Challenge 3rd place, EcoCAR Mobility Challenge 1st place

Experience:

Undergraduate Research | Research Assistant

August 2023 - February 2024

- Examining the Impact: Policies Shaping Graduate Medical Education
- Conducted data cleaning and analysis on over 200,000 hospital records using **Python**, **NumPy** and **Pandas**
- Developed geospatial visualizations with **ArcGIS** and **Geopy**, mapping the evolution of hospital facilities across US states from 1980-2019, highlighting trends in hospital closures

Skills: Excel, Pandas, Python, Data Analysis, ArcGIS, Geopy

ArboHQ | Full Stack Software Engineering Intern

September 2022 - December 2022

- Designed and developed features and API endpoints for a web application in an Agile environment
- Performed JUnit testing and deployment
- Observed proper documentation procedures for APIs
- Developed a new feature, "**Notifier**", for the admin side to send customizable messages to clients

Skills: Java, Spring Boot, AngularJS, SQL, JUnit, CSS, JavaScript

Projects:

GU-Scheduler | Developer

September 2024 - Present

- Developed a web application to organize schoolwork by suggesting courses and tracking degree progress
- Implemented course prerequisite visualization using NetworkX and Plotly, generating course graphs
- Built a degree evaluation feature that identifies completed and remaining courses needed for graduation

Skills: Python, Flask, Git, PostgreSQL, NetworkX, Plotly, JavaScript, Data Parsing

Unity 3D Game Development | Agon's Odyssey

September 2023 - December 2023

- Developed a 3D fighting game using **C#** and **Unity**
- Implemented NPC behavior, enhancing the game's interactivity and user engagement
- Used **Python** to record motion capture data and deliver a lifelike gaming experience
- Collaborated in scene design, contributing to the creation of an immersive environment
- Animated main characters

Skills: C#, Unity, Iterative Development Process, JUnit testing, Character Animation, AI

Predicting Closing Price Movements for Nasdaq Stocks | Georgia Tech ML

September 2023 - December 2023

- Applied various evaluation and optimization strategies and trained models such as **MLP**, **ARIMA**, **LGBM** to identify an optimal model for predicting NASDAQ stock prices.
- Achieved a 5.34 absolute mean error value with the MLP model, leading to more accurate prediction results

Skills: TensorFlow, scikit-learn, Python, Jupyter Notebook, Pandas, NumPy, PyTorch, Git

EcoCAR | Connected and Automated Vehicles

January 2022 - May 2023

- Developed an assisted driving algorithm in collaboration with Georgia Tech and General Motors
- Implemented a module for assisted driving near traffic lights using **MATLAB**
- Produced a solution for modeling car's behavior at intersections using Simulink
- Integrated V2X logic into the **VEINS** simulation to improve road safety and traffic efficiency

Skills: MATLAB, Simulink, Linux, ISD Tool, ROS