Kairatbek Isirailov

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EDUCATION

Lake Washington Institute of Technology   **Kirkland,Washington**
B.S.. in Computer Science   *Expected Graduation, May 2027*

- o **Concentrations:** Machine Learning and Modeling/Simulations
- o **GPA:** 3.14/4.00
- o **Related Coursework:** Data Structures & Algorithms, Objects & Design, Computer Organization & Programming, Combinatorics, Machine Learning, Artificial Intelligence, Object-Oriented Programming, Statistics & Applications

EXPERIENCE

Lake Washington Tech's Lab of Interactive Computing   **Kirkland,Washington**
Research Assistant   *Dec 2019 – May 2020*

- Utilized Python and its NetworkX graph structure library to develop efficient algorithms to optimize resource flow in a simulation in which a natural disaster strikes a city
- Developed the graphical user interface on PyGame to allow the users to visualize the results

PROJECTS

Sorting & Search Visualizer   ***Kirkland, Washington***
Python, Tkinter   *Jun 2024 – July 205*

- Developed a GUI application that visualizes common sorting (Bubble, Quick, Selection) and searching (Linear, Binary) algorithms
- Implemented real-time animations with step-by-step breakdowns of algorithm behavior
- Added interactive controls to change data size, speed, and algorithm type
- Designed to help students understand data structure concepts intuitively

Student Performance Predictor   **Bellevue,Washington,**
Scikit-learn, Pandas, Matplotlib   *Nov 2024 – Jan 2025*

- Built a machine learning model to predict student final exam performance based on study time, previous grades, absences, and socio-demographic data
- Cleaned and preprocessed data using Pandas (handling missing values, feature encoding, normalization) Trained and evaluated multiple ML models (Linear Regression, Decision Tree, Random Forest) using Scikit-learn
- Achieved **R^2 score of 0.87** with Random Forest, demonstrating strong predictive capability
- Visualized correlations and feature importance using Matplotlib and Seaborn to gain actionable insights

ACTIVITIES AND LEADERSHIP

Lake Washington Tech's College of Computing   **Kirkland,Wasington**
Teaching Assistant for CS 141 & 143 (Objects and Design)   *Aug 2023 – Dec 2023*

Muslim Student Association at Madeena mosque   **Bellevue, Washington**
President   *Aug 2019 – Current*
- Leader of an organization of 100+ members, hosting religious events, managing a board of executives, and reaching out to the underprivileged community in Atlanta

SKILLS

Programming: Java, Python, JavaScript, HTML/CSS, SQL, Node.js, React.js, MATLAB, C++, C
Tools: Git, Docker, JWT, REST APIs, GraphQL, Celery, Redis, Pytest, Alembic, Swagger, JSON, HTTP, NPM/Yarn, Webpack