Zain Imran

imranzain1234@gmail.com   Github   403-771-6264

Technical Skills:

Programming Languages: Java, R, C++*, Python*
Testing: JUnit, GDB*

* Currently acquiring

Technical Projects:

MNIST Neural Network (Personal)   May 2025 - Present
- Engineered a fully connected neural network using only NumPy in order to gain a deeper understanding of the process.
- Implemented the full training pipeline using forward propagation, ReLU and softmax functions, backpropagation, and gradient descent.
- Achieved over 97% test accuracy by training on normalized inputs and optimizing using gradient descent.
- Developed custom loss, accuracy, and weight fine-tuning functions to update weights across all layers.

Treasure Hunters (Academic)   Sept. 2024 - Dec. 2024
- Designed a Java-based game which utilized object-oriented programming concepts such as abstraction to allow a user to move around a map collecting treasures and avoiding mines. Completed with a leaderboard with various sorting capabilities.
- Implemented save/load functionality using JSON and implemented a key logger, recording key changes to the game state.
- Crafted a fully interactive GUI using Java Swing to enhance user experience.
- Implemented Test-Driven Development using JUnit to rigorously test and craft a well-designed application.

Volunteer Experience:

Red Deer Regional Hospital   Nov. 2022 - April 2023
- Assisted patients by providing conversation and comfort during patients' hospital stay.
- Communicated between patients and hospital staff to ensure patients' needs were effectively conveyed to nurses and staff.
- Provided mealtime assistance to patients requiring extra mealtime assistance.
- Replenished essential supplies such as blankets, bedsheets, hospital gowns, and protective equipment

Education:

University Of British Columbia   Sept. 2023 - May 2028
2nd Year Bachelor of Science, Major in Computer Science

UBC Science Co-op

science.coop@ubc.ca | 604-822-9677