Muhammad Wassay Shahid

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Technical Skills

Languages: Java, Python, C/C++, SQL, HTML/CSS, JavaScript, Haskell, Elm, Shell
Frameworks/Tools: Flask, Git, Visual Studio, PyCharm, IntelliJ, Eclipse, DBeaver, JUnit, REST API, AWS
Libraries: PyTorch, TensorFlow, pandas, NumPy, Matplotlib, pygame, OpenCV, DeepFace, spotipy

Projects

Portfolio Website Development

- Implemented a responsive portfolio website using HTML, CSS, and JavaScript.
- Optimized CSS media queries for seamless adaptation to various screen sizes, including mobile (up to 375px width) and desktop (above 1024px).
- Designed a mobile-friendly hamburger menu with an interactive toggle function in JavaScript.
- Incorporated CSS transitions and animations to enhance user experience with smooth hover effects and animations for buttons, links, and icons.
- Deployed the website using GitHub Pages, maintaining a 99.99% uptime across multiple devices and browsers.

Snake Game Development

- Developed a classic Snake Game using Python and Pygame.
- Implemented game logic, including snake movement, fruit consumption, and collision detection.
- Designed a user interface (UI) with distinct colors for the snake, fruit, and background for better visual clarity.
- Managed real-time score display and created a game-over screen with reset functionality.
- Handled user inputs via keyboard to control the snake's movement and adjust gameplay speed.

Emotion-Based Music Recommendation System

- Developed a real-time emotion detection system using Python, OpenCV, and the DeepFace library, achieving an emotion detection accuracy of over 90% under ideal lighting conditions.
- Integrated the Spotify Web API to retrieve audio features for songs and classified them into emotional categories with a precision rate of 85% using metrics like valence, energy, and danceability.
- Implemented logic to map detected emotions (e.g., happy, sad, angry, neutral, fear, surprised, and disgust) to curated playlists, reducing recommendation redundancy by 60% with randomized track suggestions.

Experience

AI/ML Intern May 2025 – July 2025
ArhamSoft (Pvt) Ltd. *Lahore, Pakistan*

- Joined the AI/ML team and received mentorship on designing, training, and evaluating deep learning models.
- Developed a Convolutional Neural Network (CNN) from scratch using PyTorch and trained it on the CIFAR-10 dataset.
- Achieved an accuracy of approximately 92% on the test set through hyperparameter tuning and data augmentation.
- Deployed the trained model using Streamlit, enabling interactive real-time image classification via a web interface.
- Documented model architecture, training methodology, and deployment steps to support reproducibility and scalability.

Curriculum Developer July 2021 – August 2021
Care Foundation *Lahore, Pakistan*

- Worked as a Curriculum Developer at Care Foundation Pakistan, a welfare trust that provides quality education to underprivileged children across Pakistan
- I learned how to design and implement curriculum for computer science and science subjects, following the best practices of a foundation that emphasizes creativity and culture
- Developed creative and critical thinking skills in students by integrating arts into school subjects, following a high functioning classroom model and five creative habits of mind
- Contributed to the improvement of infrastructure, facilities, and teacher training in government schools that were adopted and transformed by Care Foundation

Education

McMaster University Aug. 2022– Present
Bachelor of Computer Science *Hamilton, ON*