SUKHBIR SINGH

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EDUCATION

Associates Degree, Computer Programmer

Sheridan College   📅 01/2019 - 08/2020   📍 Brampton, ON

PROJECTS

Self Driving Car Game (Artificial Intelligence)

Developed a virtual Car game driven by **AI** using **Deep Q Learning**, **Artificial Neural Networks**, and **PyTorch**.

- The goal of the Car is to make round trips between two points while avoiding any **obstacles** the user had drawn.
- The Game Environment is developed using **KIVY** in **Python.**

🔗 https://github.com/sukhbir77/Self-Driving-Car-Using-AI.git

AI Learns to Play DOOM

Developed an **AI** to play the famous 2D video Game **DOOM**.

- The goal of the **AI** is to get maximum points in the game and kills enemies.
- Developed using **Deep Convolutional Q Learning** and **PyTorch.**
- Implemented **Experience Replay**, **Eligibility Trace**, **Asynchronous n-step Q-Learning-pseudocode** for each actor-learner thread.
- The environment is imported using the **GYM module**.

🔗 https://github.com/sukhbir77/AI-Playing-Doom.git

A* Path Finding Algorithm Visualization

Using the **Python Tkinter** and **Pygame** module developed a visualizer tool for **A* path finding algorithm**.

- The user can draw two points on a screen and can **visualize** the **algorithm** running as it reaches node to node to find the path in an **optimal way.**

🔗 https://github.com/sukhbir77/A-Path-Finding-Algorithm-Visualizer-Tool.git

AI Playing Breakout

Developed an AI Model to play the **Breakout(Atari Game)**.

- Implemented advanced **Deep Convolution Q Learning** and **Asynchronous Actor-Critic Agents, model**.
- The model is based on **LSTM(Long-Short-Term-Memory)**.
- **AI** learns to play really well after 1 hour of training.
- The game environment is imported from the **GYM Python module**.

🔗 https://github.com/sukhbir77/AI_Playing_Breakout.git

Blog Website

Using **Express.js** and N**ode.js** developed a fully functional blog website. Users can post blogs and see blogs posted by other users.

- The **database** used was **MongoDB** and connected using **Mongoose JavaScript Library.**
- Users are **authenticated** using **OAuth Authentication** (Google and Facebook).

🔗 https://github.com/sukhbir77/Blog-Website.git

Sudoku Game & Solver

Developed an **UI** to play the game of **Sudoku.**

- Implemented a solver feature that uses the **Backtracking Algorithm** to find a solution to **any solvable game.**

🔗 https://github.com/sukhbir77/Sudoku-Solver.git

TECHNICAL SKILLS

Java   Python   C language   C#

JavaScript   Data Structures & Algorithms

Object Oriented Programming

Git Version Control   Artificial Intelligence

Machine Learning   React Native

Data Visualization   Computer Vision

Android & iOS   OpenCV

Cloud Computing   Photoshop

Front-End

HTML   CSS   JavaScript   jQuery

React   Bootstrap   WordPress

Back-End

Node   Express   RESTful API Integration

EJS   SQL   NoSQL   MongoDB

Mongoose   PHP   OAuth

Familiar With

TypeScript   C++   Angular.js

FIND ME ONLINE

🌐 **Personal Website**
www.dead-developer.com

GitHub
https://github.com/sukhbir77

in **LinkedIn**
http://www.linkedin.com/in/sukhbir-brar-96b878180