Overview  
Artificial Intelligence is being discussed over virtually any form of media, but no game lets the user directly interfere with the training of such an AI. Furthermore, the concept of Machine Intelligence seems so complex and hard to grasp.

trAIner is an absorbing, immersive game experience that lets the player develop and train his own AI and then compete with other players, providing long term satisfaction and steadily increasing the players knowledge of how its AI learns and operates.

trAIner brings a new dimension to AI in video games including the key areas:

* **build your own maps :** design increasingly complex maps in order to further evolve the success of your AI
* **compete with other AIs:** check how well you trained your AI by competing with other players. Leave your legacy on the global scoreboard!
* **understand the complex nature of AI :** grasp how machines learn by immersing yourself in the process of mastering the game

trAIner lets you train your own AI the same way you could train a Pokemon

Train your own AI

Technology behind

trAIner is a single- and multiplayer cross-platform game written in Java, and thus can be played on any system or browser supporting Java.

For training the AI a genetic algorithm is used which is gradually developed by the player. In the map builder the user builds his own maps in a sandbox-style fashion.

Gameplay

1. build a map

2. train your AI on your self built map

3. compete on a challenge map

4. compare rank with global players

Stakeholders

Features

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| **Need** | **Priority**  **1=low - 5=high** | **Features** | **Planned Release** |
| Map Builder | 5 | - create basic canvas  - add map elements | ~08.11.18 |
| Genetic Algorithm | 5 | - train AI  - adjust parameters for learning | ~22.11.18 |
| Challenge Maps | 4 | - different levels with increasing difficulty  - score tracking | ~22.11.18 |
| Scoreboard | 3 | - compare results globally  - view stats | 03.01.19 |
| Power-Ups | 1 | - achievments for completing levels  - rewards | 03.01.19 |
| Muli-language | 1 | - choose language | 03.01.19 |

Requirements