Title: Simulation of intelligent behavior of Non-Player Characters in First-Person Shooter computer game environment using Machine Learning techniques.

1. Introduction
   1. ??? – leave it for later
   2. Artificial Intelligence
   3. Computer games industry
   4. The goal of Game AI
   5. Short history of Game AI
   6. Thesis goal
   7. Outline
2. Background
   1. Artificial Intelligence in First-Person Shooter games
      1. Introduction
      2. Bots architecture
      3. Navigation solutions
      4. Finite State Machines
      5. Fuzzy Logic
      6. Scripting
   2. Machine learning in Computer Games (Leave it? Remove it?)
      1. Introduction
      2. Online and offline learning
      3. Testing issues
   3. Optimization methods
      1. Introduction
      2. ???
      3. Popular optimization algorithms
      4. Stochastic optimization
   4. Reinforcement Learning
      1. Introduction
      2. ??? – more information
      3. Connectionist Q-learning
      4. Applications
      5. Related work
   5. Quake II and QASE API
      1. Introduction
      2. Game choice
      3. QASE API
      4. Related work
3. Project requirements (or: Thesis scope, or: Requirements and assumptions, or: Problem statement)
   1. Project scope (or: Project goal and scope? Or: The task)
      1. Designing and developing Quake II bot able to compete with human players and other third-party bots.
      2. Applying reinforcement learning for a selected problem
   2. Assumptions
      1. Implementing necessary minimum for effective navigation. Using prepared map knowledge.
      2. Focusing on combat module
   3. Limitations
      1. Client side – will have a delay
      2. Lack of full information about the world – elevators, gunshots, etc.
4. Developed solution (or: Methods)
   1. Introduction
   2. ReferenceBot
   3. RLBot
   4. EraserBot
   5. Support applications
5. Experiments description
6. Results
7. Conclusions
8. Attachments
9. Bibliography