## Deep Reinforcement Learning Beginners Tutorial Tasks

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## 1 Annotations

Author: The person who wrote the first version.

Reviewer: The person reviewing. Checking and maintaining written text. Re-

wording if necessary.

Note: Except for "Code", the objectives concern the written elaboration of the

project.

| D   | Distribution of tasks            |           | ъ.         |
|---|----------------------------------|-----------|------------|
| Primary objective   | Subtask                          | Author    | Reviewer   |
| Installation guide  |                                  | Robin (R) | Julian (J) |
| Documentation   |                                  | JR        | JR         |
| Adjustments   |                                  | JR        | JR         |
| Poster  |                                  | J         | R          |
| Stake out topic   | Research technology              | JR        | JR         |
|   | Research RL theory               | JR        | JR         |
|   | Research code                    | JR        | JR         |
| Code  | RL Agent                         | J         | R          |
|   | OpenAi Gym                       | R         | J          |
|   | Visualization                    | R         | J          |
|   | Adjustments                      | JR        | JR         |
| DRL Beginners $Tutorial(1)$ - Theory                      | Introduction                     | R         | J          |
|   | Agents                           | R         | J          |
|   | RL                               | J         | R          |
|   | The concept of RL                | J         | R          |
|   | Summary                          | J         | R          |
|   | Deep Learning Aspect             | J         | R          |
|   | Q-Learning                       | J         | R          |
|   | Q-function                       | J         | R          |
|   | Model Q-function                 | J         | R          |
|   | Outlook                          | R         | J          |
| ${ m DRL}$ Beginners ${ m Tutorial}(2)$ - ${ m Practice}$ | Introduction                     | R         | J          |
|   | OpenAi Gym                       | R         | J          |
|   | Install OpenAi Gym               | R         | J          |
|   | Introduction to cartpole         | R         | J          |
|   | Make epochs viewable             | R         | J          |
|   | OpenAi Gym and rendering         | R         | J          |
|   | Creating a RL Agent              | J         | R          |
|   | Important Configuration Values   | R         | J          |
|   | Exercise: Implementing the Agent | J         | R          |
|   | Summary of the created Agent     | J         | R          |
|   | Initialize Agent                 | R         | J          |
|   | Preparation for training         | R         | J          |
|   | Interact with Environment        | R         | J          |
|   | Expected Result                  | R         | J          |
|   | Improvements                     | R         | J          |
|   | Universal AI                     | R         | J          |
|   | Outlook                          | R         | J          |

Figure 1: Distribution of tasks