

06/14/17 05:31:33 /home/zz/Documents/TIPE/src/factories/NeuronFactory.py

```
1  #!/usr/bin/python3.4
2  # -*-coding:Utf-8 -*
3
4  from lib.inherit_docstring import inherit_docstring
5  from random import randint
6
7  from src.meta.ABCInheritableDocstringsMeta import ABCInheritableDocstringsMeta
8  from src.EvolutiveGenerator.GeneticElementFactory import GeneticElementFactory
9  from src.entities.Neuron import Neuron
10 from src.factories.GameEventDataFactory import GameEventDataFactory
11 from src.factories.ActionEventDataFactory import ActionEventDataFactory
12
13
14 class NeuronFactory(GeneticElementFactory, metaclass=ABCInheritableDocstringsMeta):
15     """Neuron factory"""
16
17     @property
18     @inherit_docstring
19     def genetic_element_class(self):
20         return Neuron
21
22
23     @staticmethod
24     @inherit_docstring
25     def create():
26         return Neuron(GameEventDataFactory.create(), ActionEventDataFactory.create())
27
28
29     @staticmethod
30     @inherit_docstring
31     def mutate(element):
32         if randint(0, 1):
33             GameEventDataFactory.mutate(element.game_event_data)
34         else:
35             ActionEventDataFactory.mutate(element.action_event_data)
36
37
38     @staticmethod
39     def hydrate(data):
40         return Neuron(
41             GameEventDataFactory.hydrate(data['game_event_data']),
42             ActionEventDataFactory.hydrate(data['action_event_data'])
43         )
```