MachineLearning

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Uyga Vazifa 3 dars

* Classificationgadoiro’zingiz4tamisoltopingvadatasetyarating(misoldagidek)

Classificationda target qiymat aniq bir qiymat chiqishi kerak

Misol

1 homilador ayol ichidagi bola o’gil yoki qiz farzandligini aniqlash

2 face ID orqali ushbu inson gadjet egasi yoki egasi emasligini aniqlash

3 berilgan input data lardan foydalanib yomg’ir yog’adi yoki yog’maydi

4 DNK natijasi ijobiy yo salbiy

Table1: Face ID orqali gadjet egasini aniqlash

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **RasmID** | **Ko’z rangi** | **Yuz shakli-** | **Quloq**  **shakli** | **burun kattaligi**  **(sm)** | **Natija(egasi yoki**  **Egasi emas)** |
| 1 | Oq | Dumaloq | kichik | 2.5 | egasi |
| 2 | qora | Yassi | katta | 1.8 | Egasi emas |
| 3 | oq | uzun | Kichik | 2.2 | Egasi |
| 4 | Qora | yasi | katta | 1.9 | egasi |
| 5 | Oq | dumaloq | kichik | 2.4 | Egasi emas |

* Regressionga doir o’zingiz 4 ta misol toping va data set yarating (misoldagidek)

Supervised Machine learning bu turi regression model bo’lib,output qiymati bir nechta yoki cheksiz ketaveradi.

Masalan

1 Fond birjada Apple ning aksiya bahosi qancha foizga oshadi: 1% ,20%...... yoki tushib ketishi ham mumkin

2 yana 10 yildan keyin Uzbekistan GDP qancha % o’zgaradi

3 Dunyo aholisini demografik o’zgarishi bunda ta’sir qiluvchi ioutlar Covid, urush, saraton,tugulish kamayishi

4 Tatalizatorda Manchester Unighted fudbol klubining qaysi natijada yutish yoki yutqazish ehtimoli

Table 2 Dunyo aholisini turli sabablarga ko’ra demografik o’zgarishi:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **O’zgarish sabablari** | **urushlar** | **Tabiiy ofatlar** | **saraton** | **Tugulish**  **Kamayishi %** | **Natija**  **%** |
| 1 | Ochiq front | zilzila | oshqazon | 5 | +5 |
| 2 | Havo hujum | tarnado | miya | 10 | **-10** |
| 3 | Yadroviy | To’fon | O’pka | 15 | +2 |
| 4 | Ochiq front | zilzila | miya | 20 | -20 |
| 5 | Havo hujum | To’fon | O’pka | 22 | +1 |

Umumiy holda, Machine learning 3 turga bo’linishini o’rgandik:

Supervised

Unsupervised

Reinforcement

Va Supervised MI esa Classification vaRegression modellarga bo’linishini o’rgandik

Clasificationda natija ob’ektlarni belgilangan sinflarga ajratib aniq qiymat chiqazib beradi

classification ham ikki ko'rinishda bo'ladi:single va multi class.agar output 2 xil bolsa single va lakin 3 av undan ortiq bo'lsa multiple classification Karonami yoki yo’q ,email soxtami yoki yo’q,jaroxat oladimi yoki yo’q

Regressionda esa miqdoriy qiymatlarni bashorat qilib, cheksiz qiymatlar chiqadi natija mas'alan: ishchilar oyligi,ob havo harorati