# Test sur les différentes instances

## Configuration

**Paramètres :**

- nombre de neurones : 100
- profondeur : 1
- nombre de epoch par default : **5000**
- loss fonction : categorical crossentropy :

$$L_i = -\sum_j \hat{y}_{i,j} \log(y_{i,j})$$

  $\hat{y}$ sont les prédictions, $y$ sont les varies valeurs, $i$ désigne le point de données et $j$ désigne la classe.

- adam : Cet algorithme est un moyen de calculer le taux d'apprentissage adaptatif pour chaque paramètre.

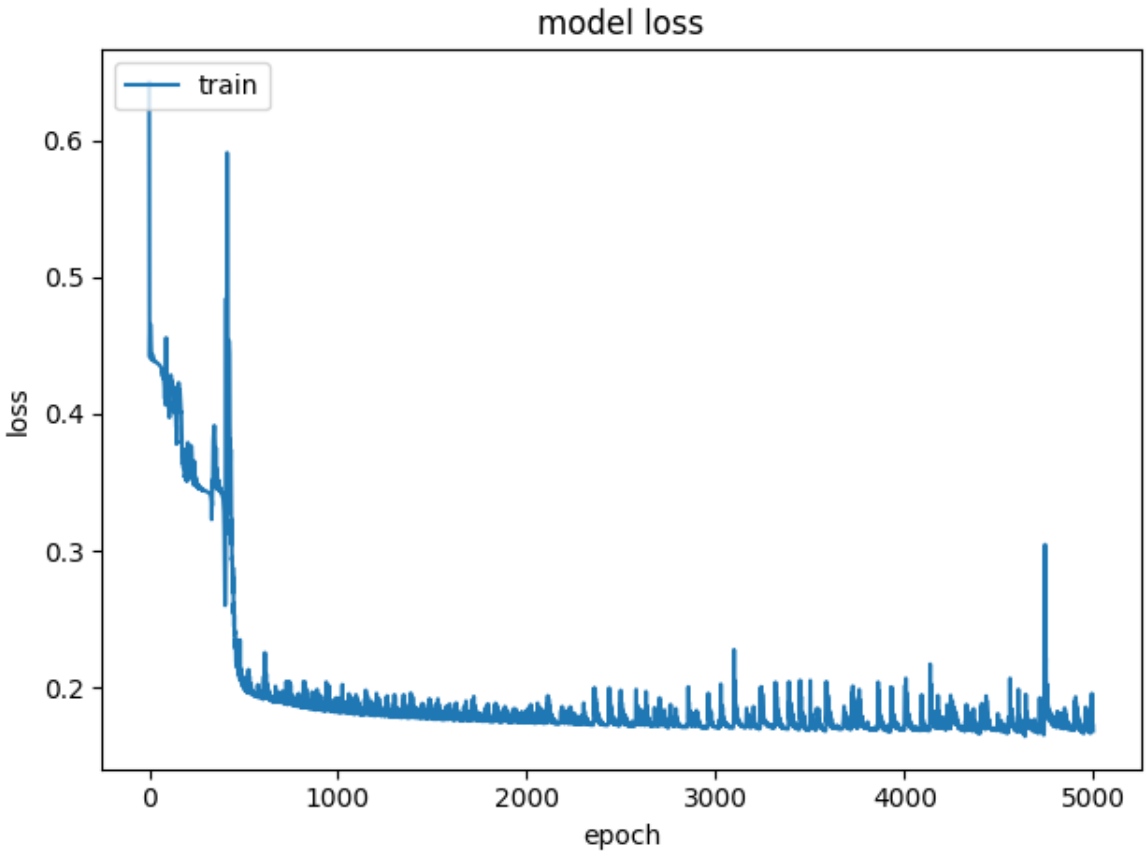
**Définition :**

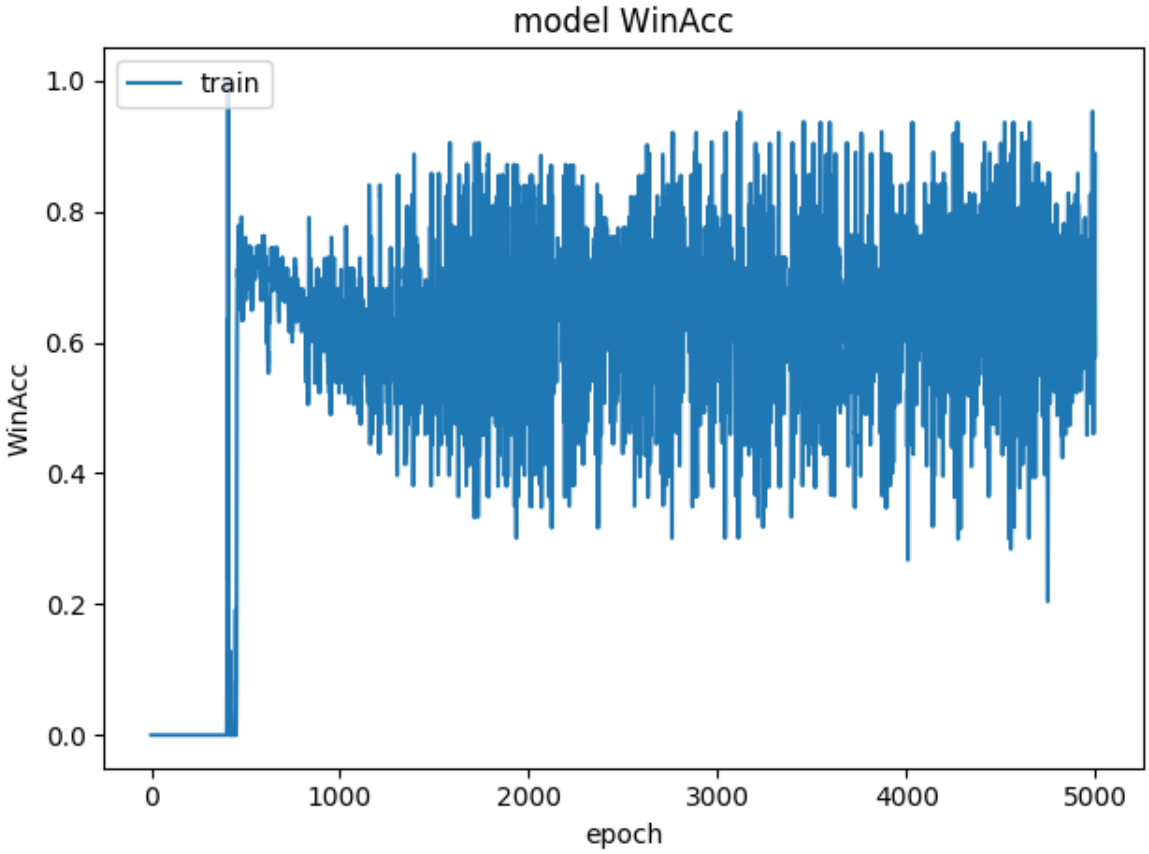
- Ctime: Completion time
- loss : Denière valeur de loss fonction
- acc : précision finale
- winAcc: précision finale pour la fenêtre
- outWinAcc : précision finale pour hors de la fenêtre

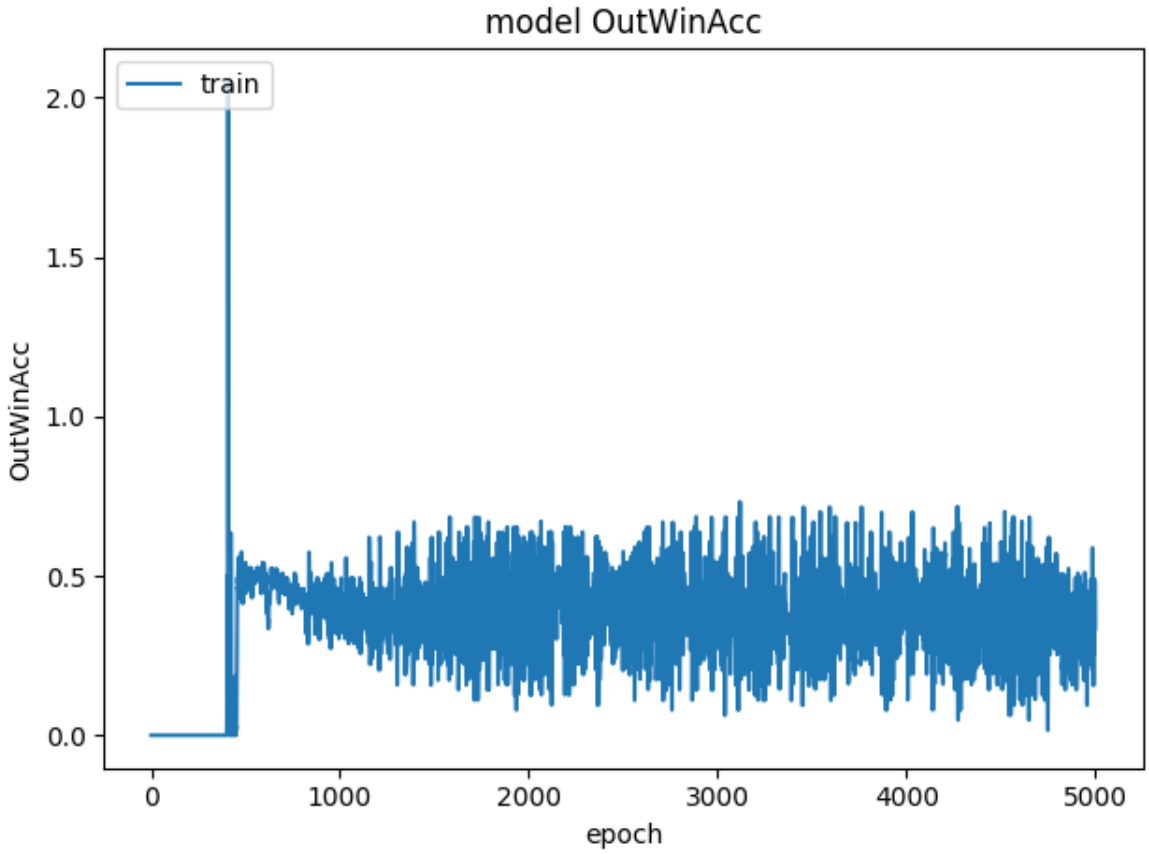
### Tests

| Test sénarios | Résultats |
| --- | --- |
| 1 instance 3 données | loss=0.1798<br>winAcc=0.3333 outWinAcc=0.0000e+00 |
| 1 instance 4 données | loss=0.1714<br>winAcc=0.5962 outWinAcc=0.2091 |
| 2 instances 4 données | loss=0.1685<br>winAcc=0.8885 outWinAcc=0.4781 |
| 2 instances 6 données | loss=0.2294<br>winAcc=0.3646 outWinAcc=0.2039 |
| 2 instances 8 données | loss=0.1929 winAcc=0.4675 outWinAcc=0.2400 |
| 3 instances 3 données | loss=**4.5206e-05** winAcc=**1.0000** outWinAcc=**0.0000e+00** |
| 3 instances 6 données | loss=0.1844<br>winAcc=0.5926 outWinAcc=0.4438 |
| 3 instances 9 données | loss=0.1721<br>winAcc=0.5926 outWinAcc=0.2904 |

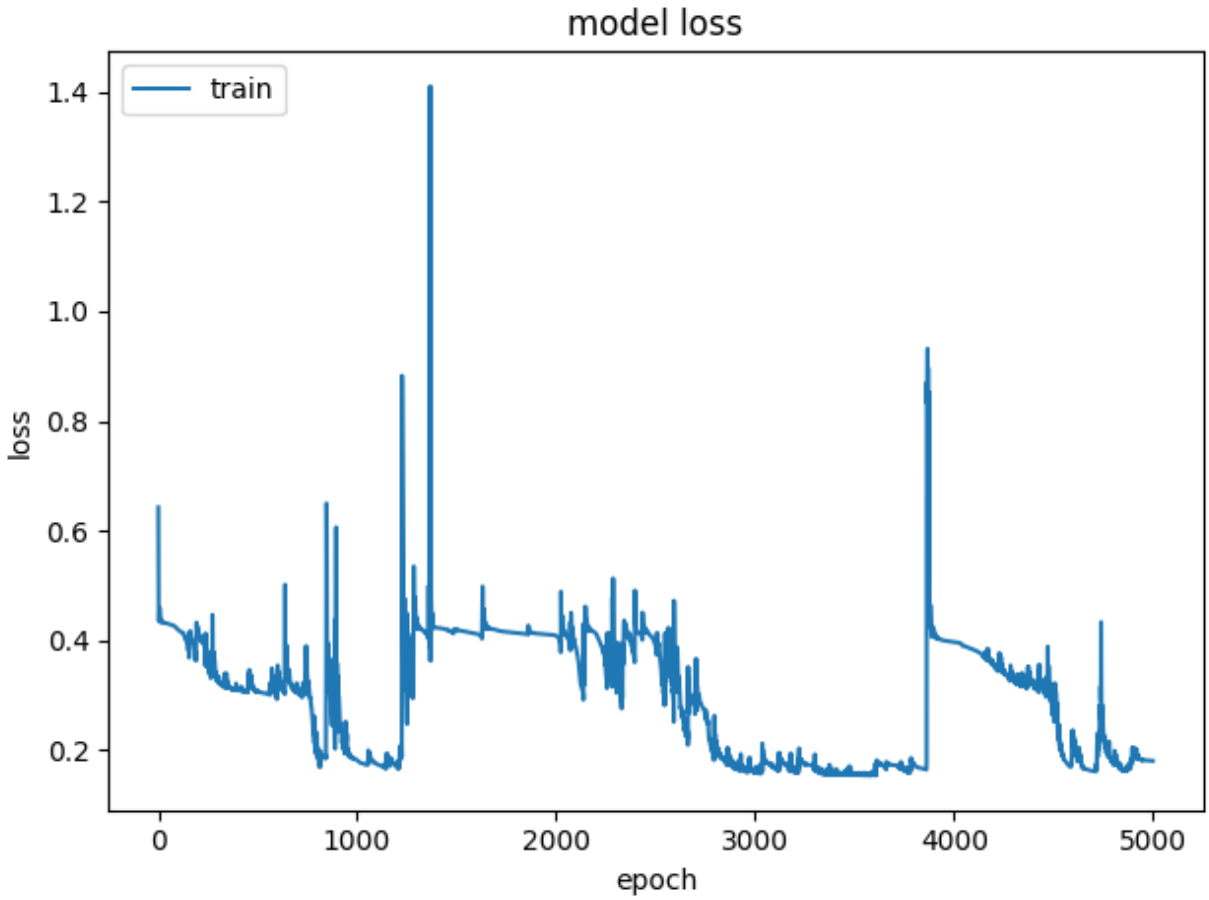
1. 2 instances 4 données

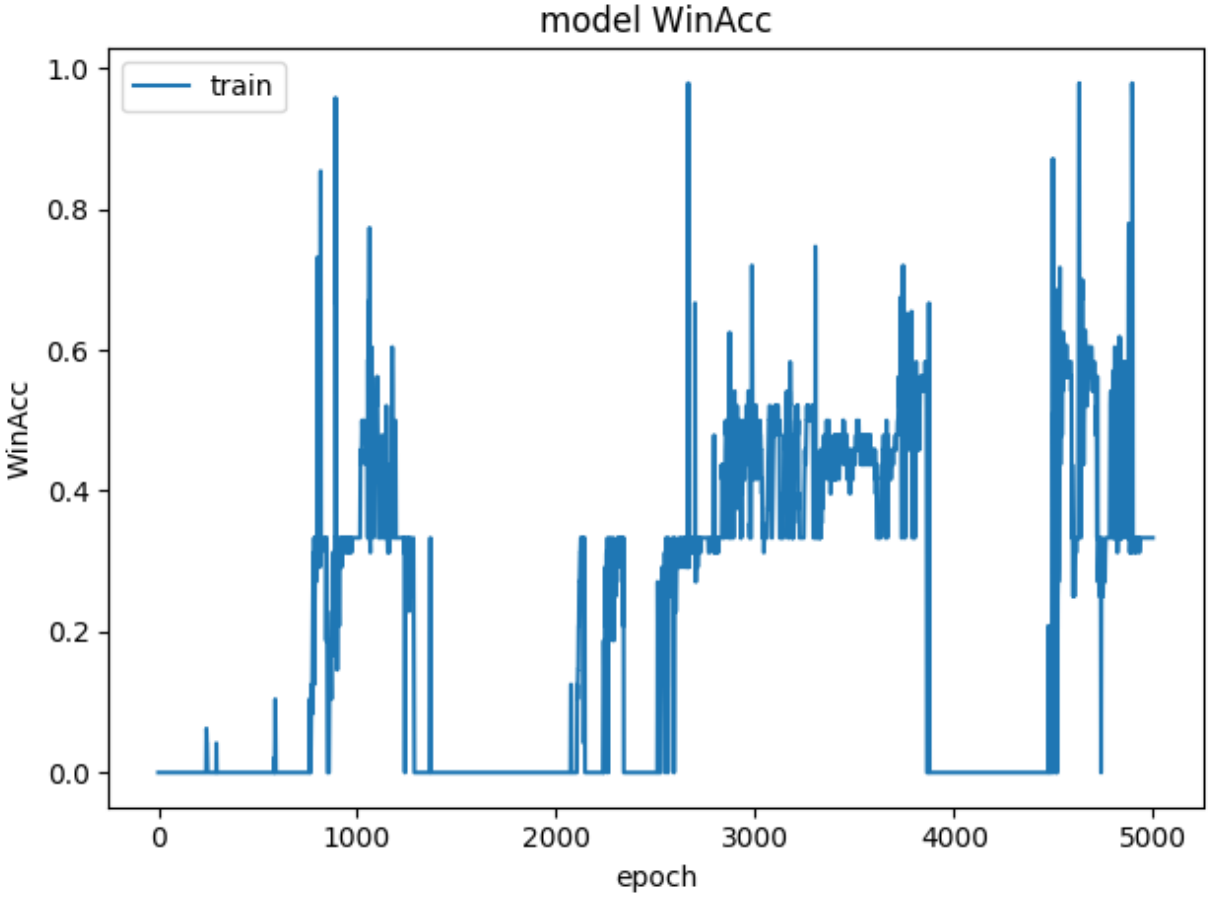


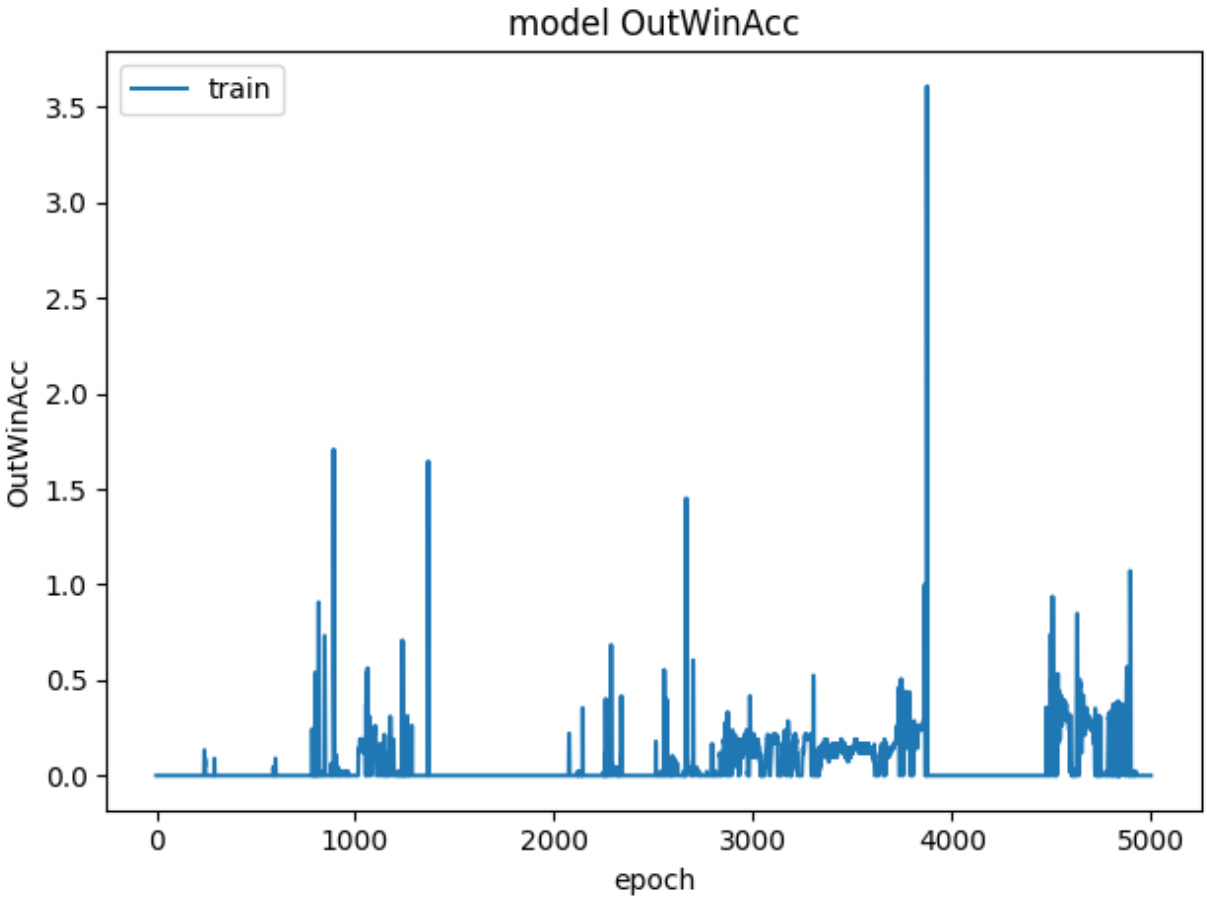


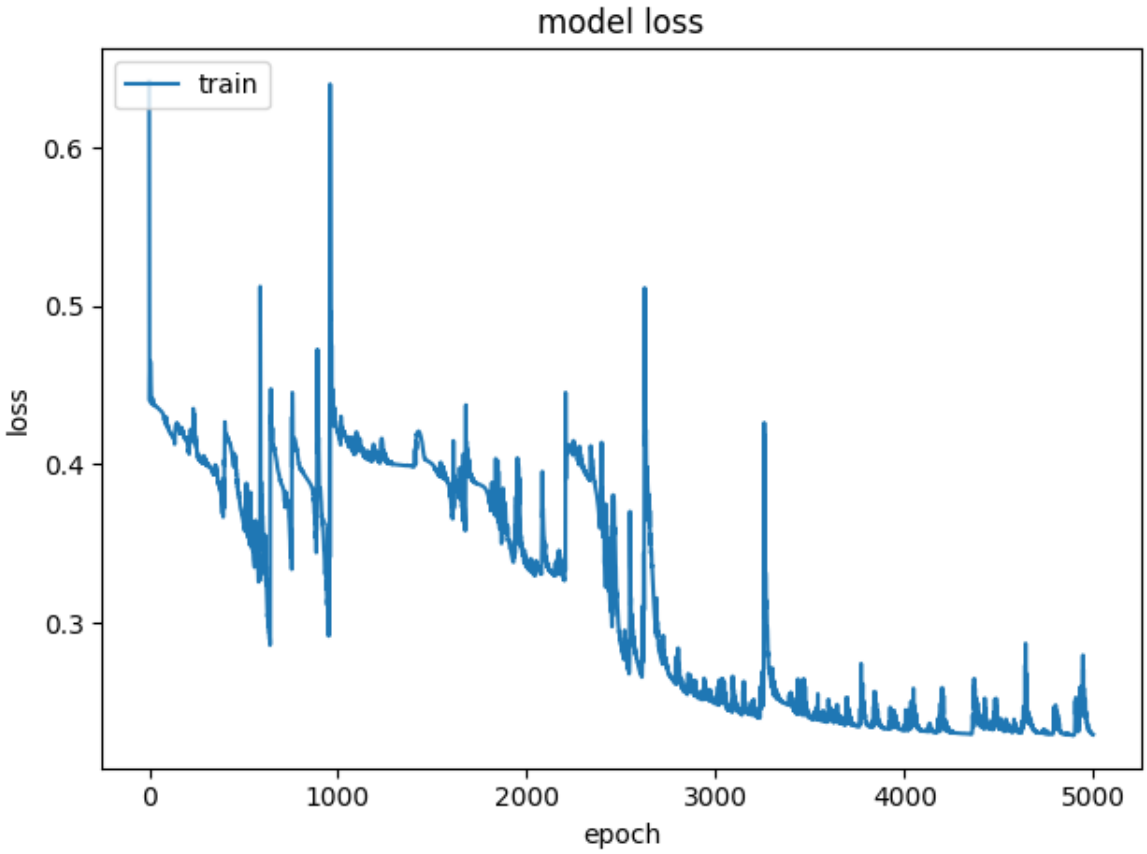

2. 1 instance 3 données

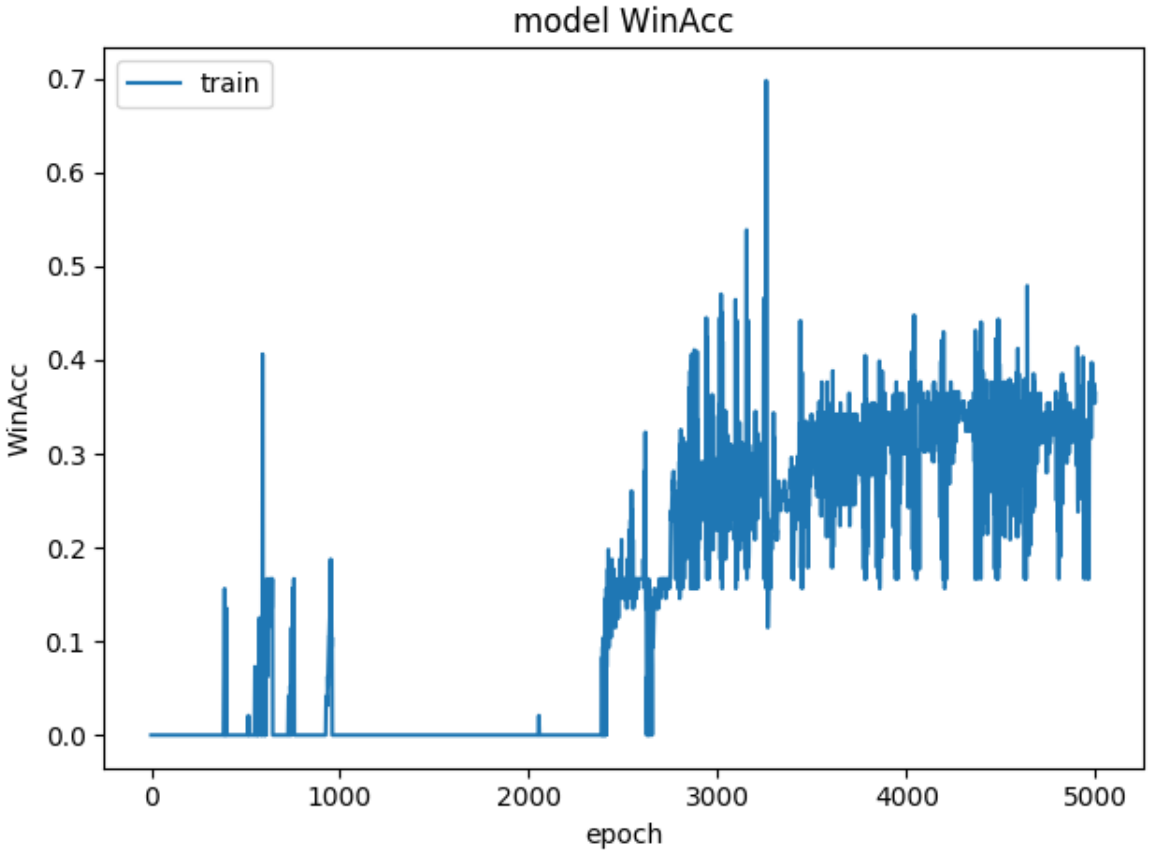

model loss
train
loss
epoch
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0
1000
2000
3000
4000
5000

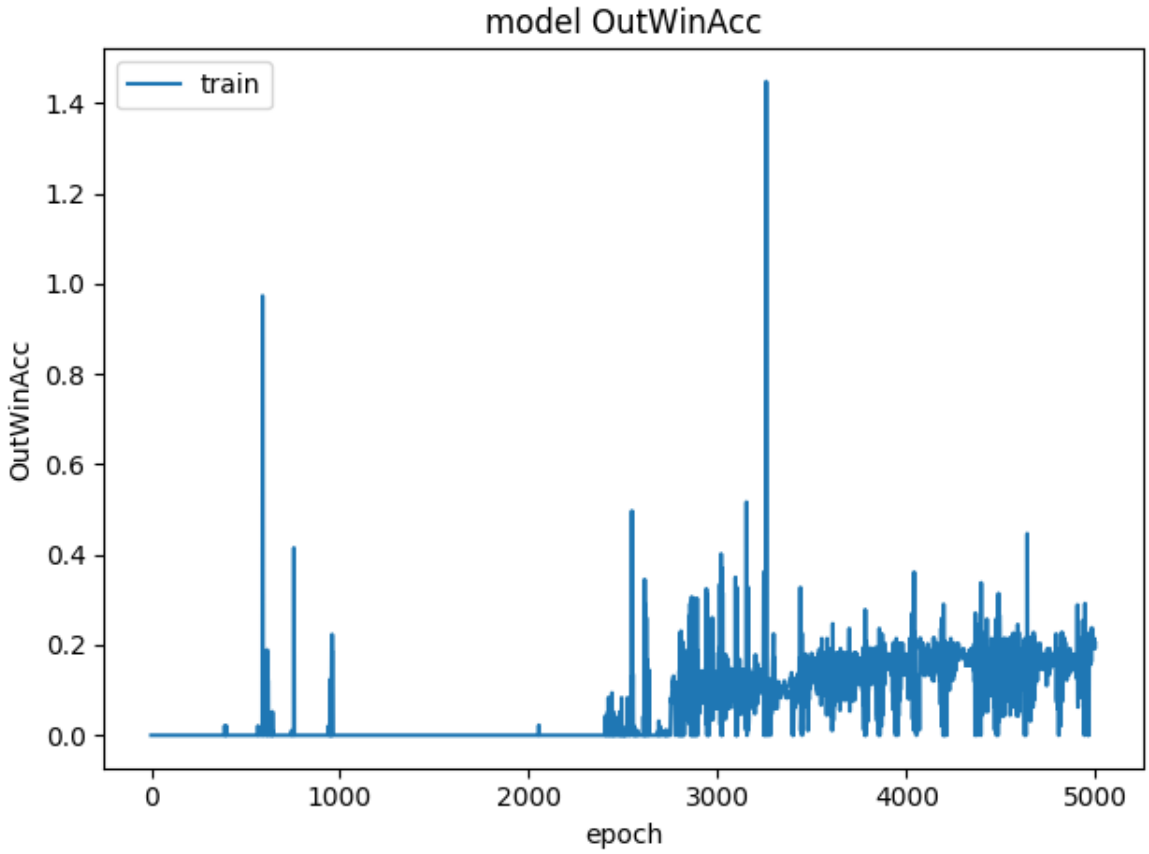

model WinAcc
train
WinAcc
epoch
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
5000



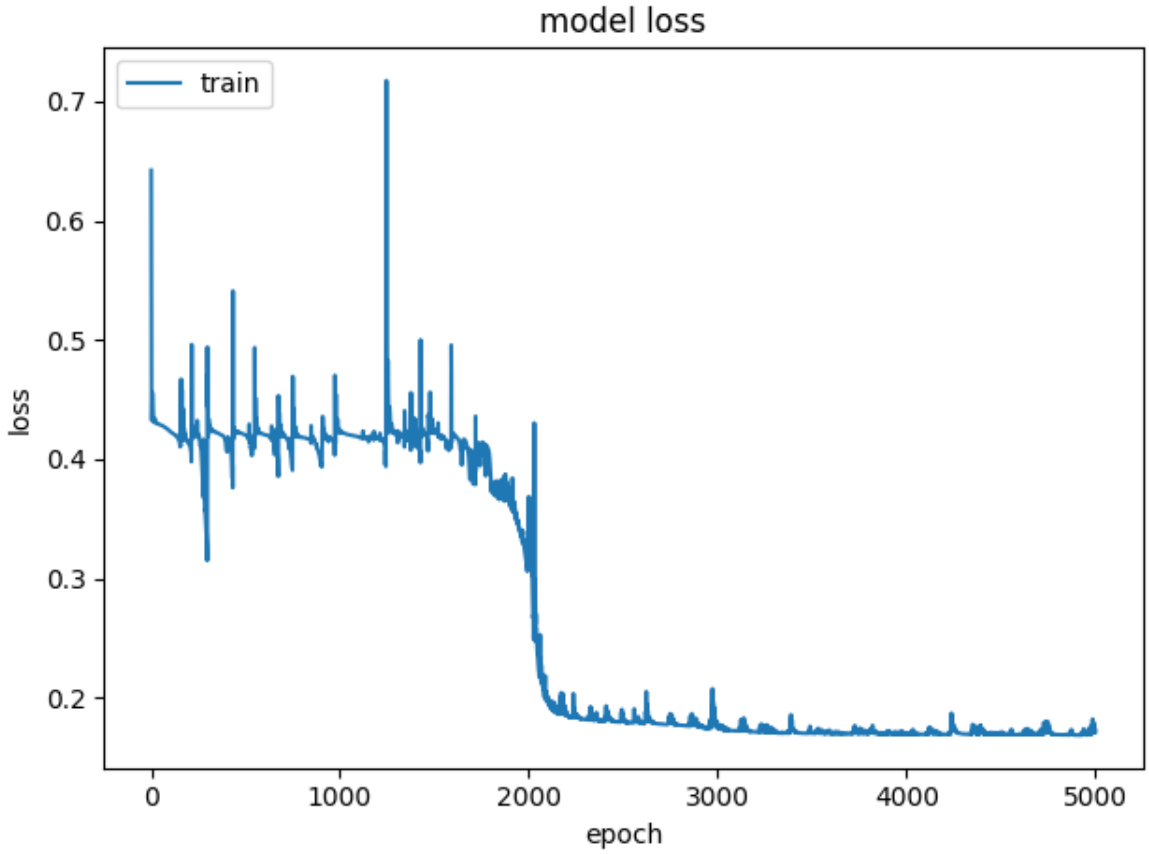

3. 2 instances 6 données

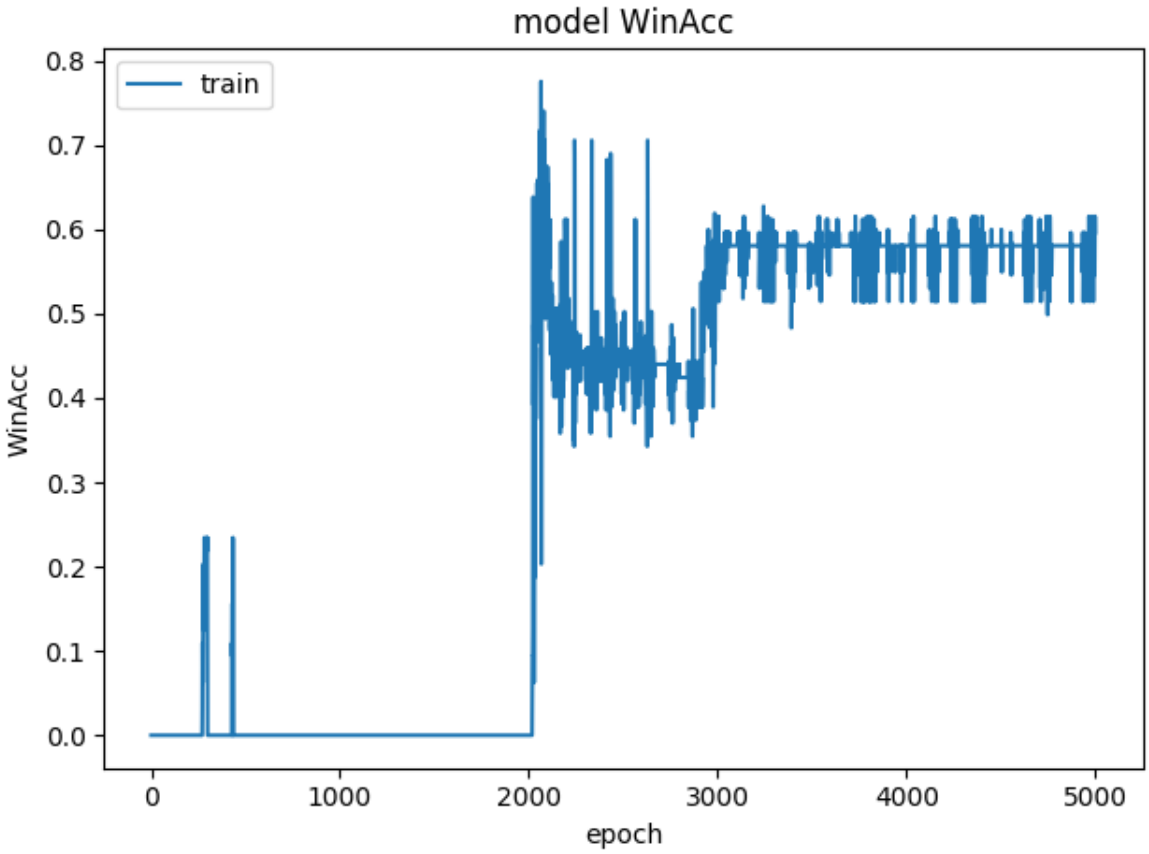


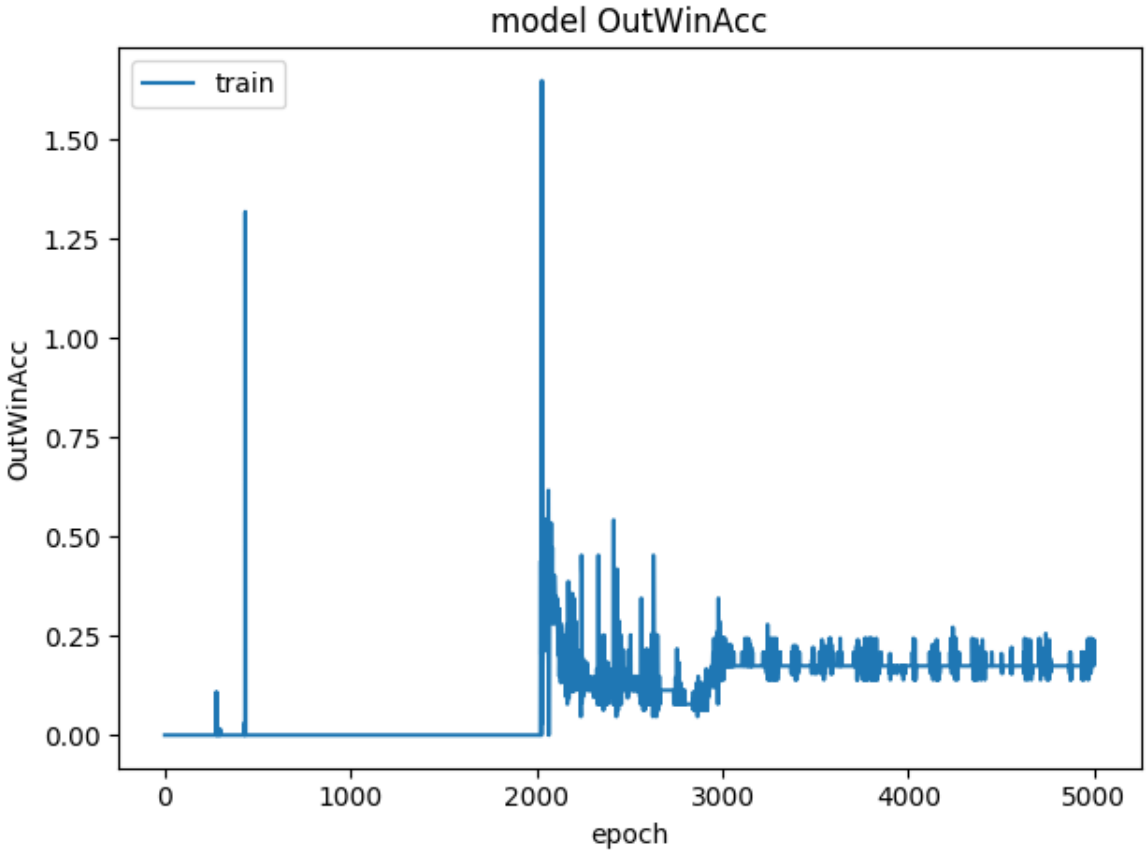


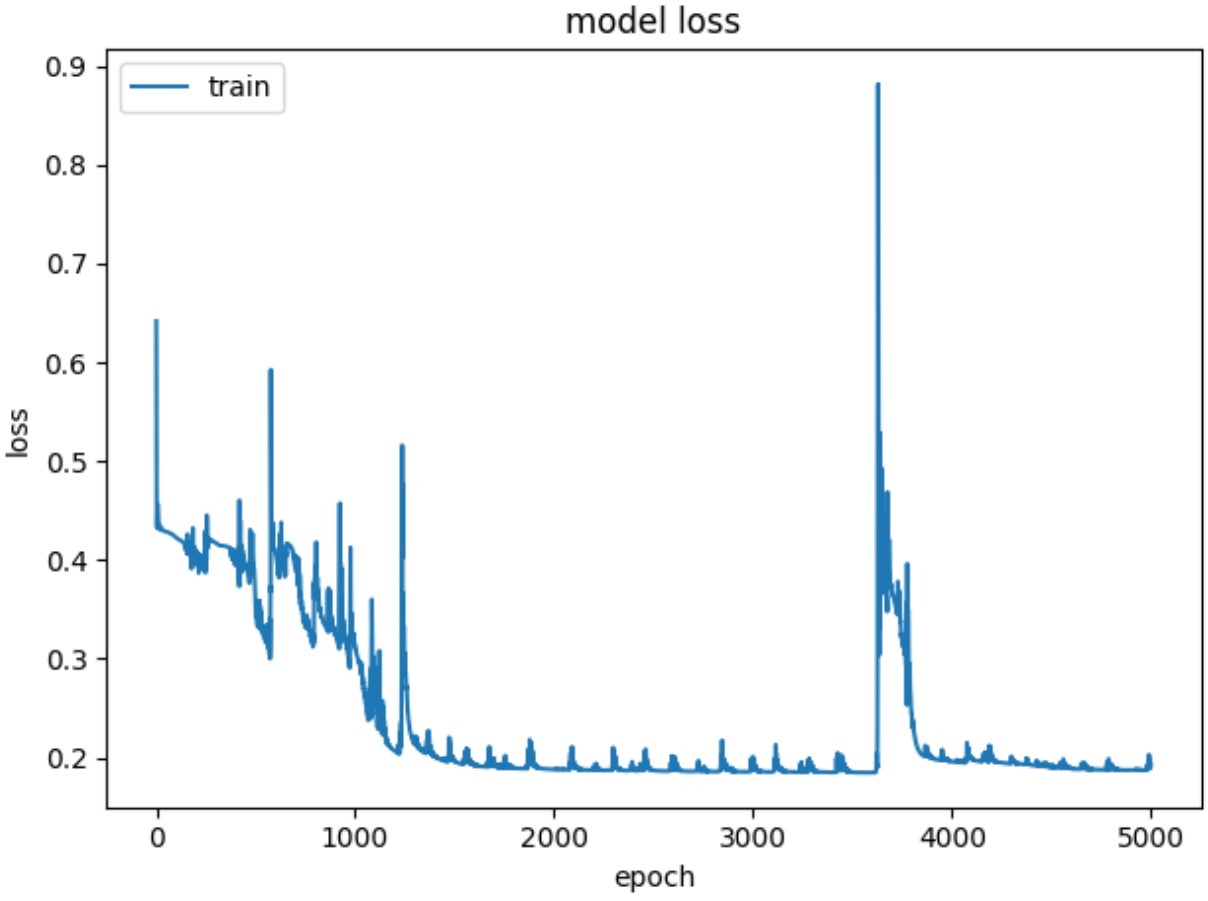

4. 1 instance 4 données

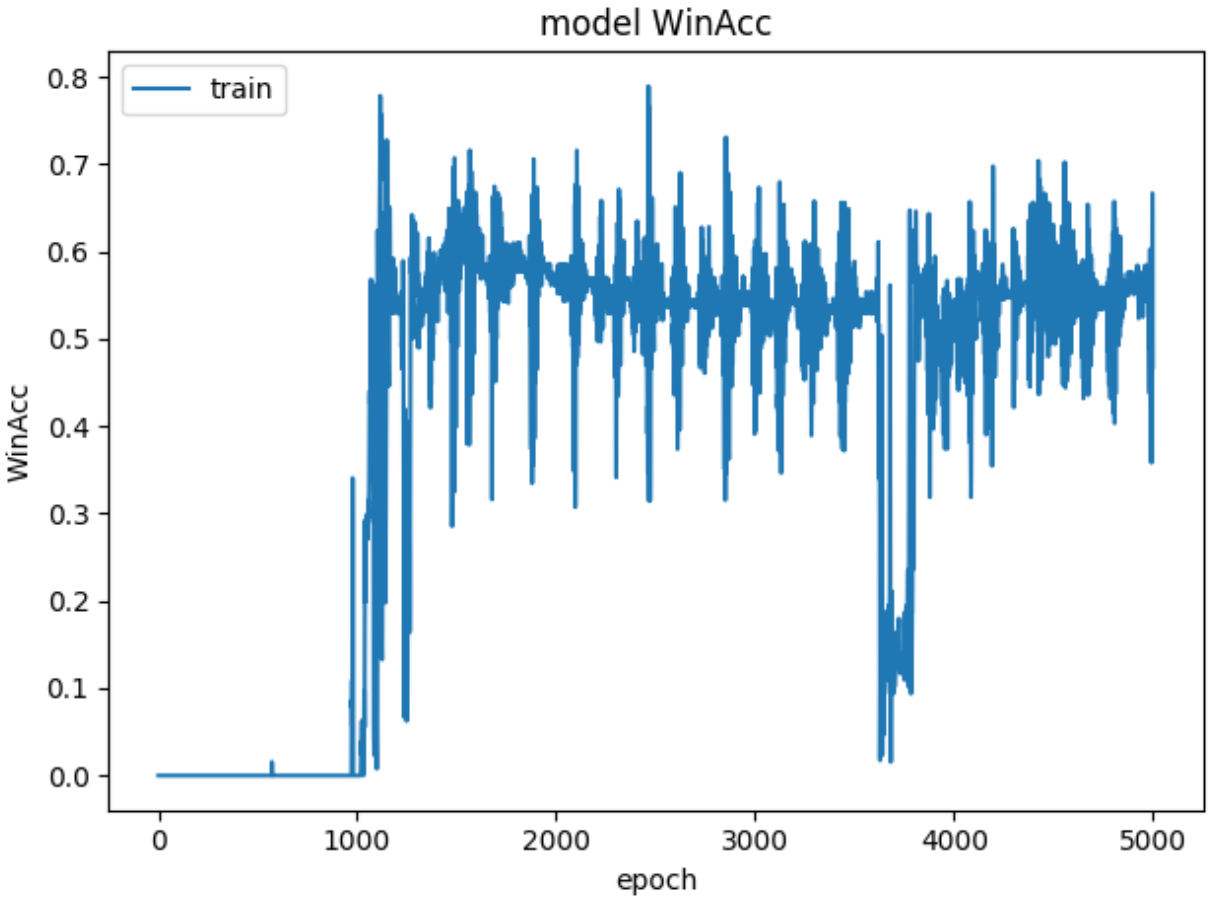

model loss
train
loss
epoch
0.7
0.6
0.5
0.4
0.3
0.2
0
1000
2000
3000
4000
5000

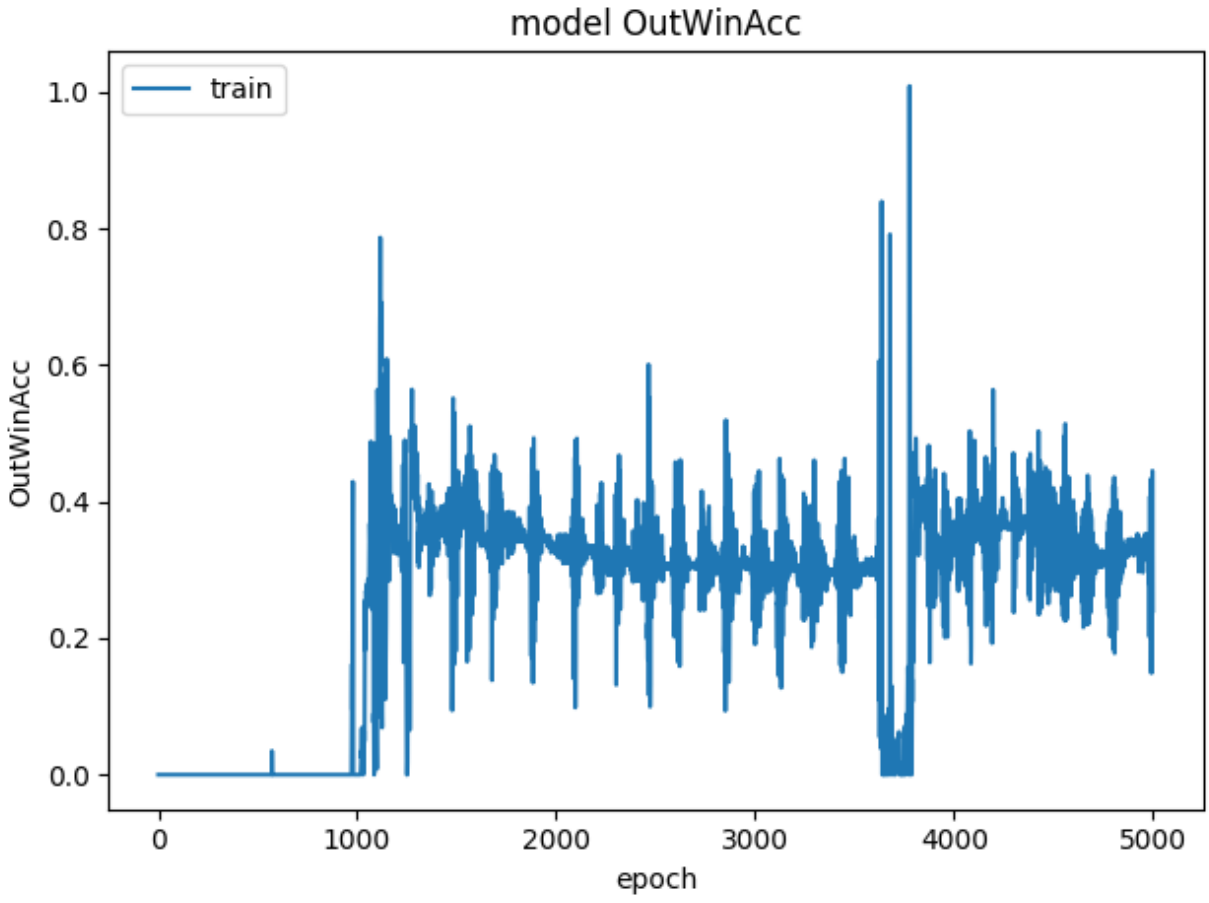

model WinAcc
train
WinAcc
epoch
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0
1000
2000
3000
4000
5000



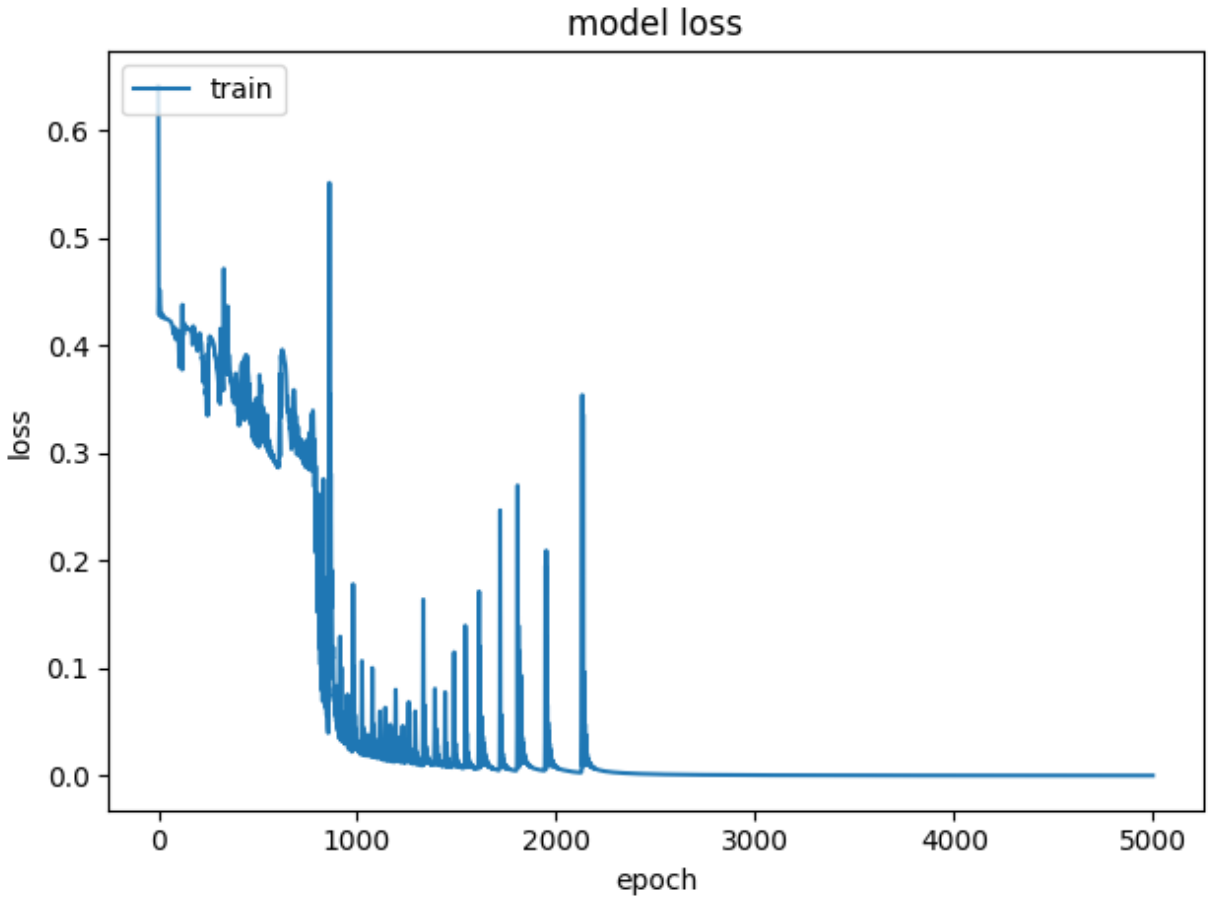

5. 2 instance 8 données

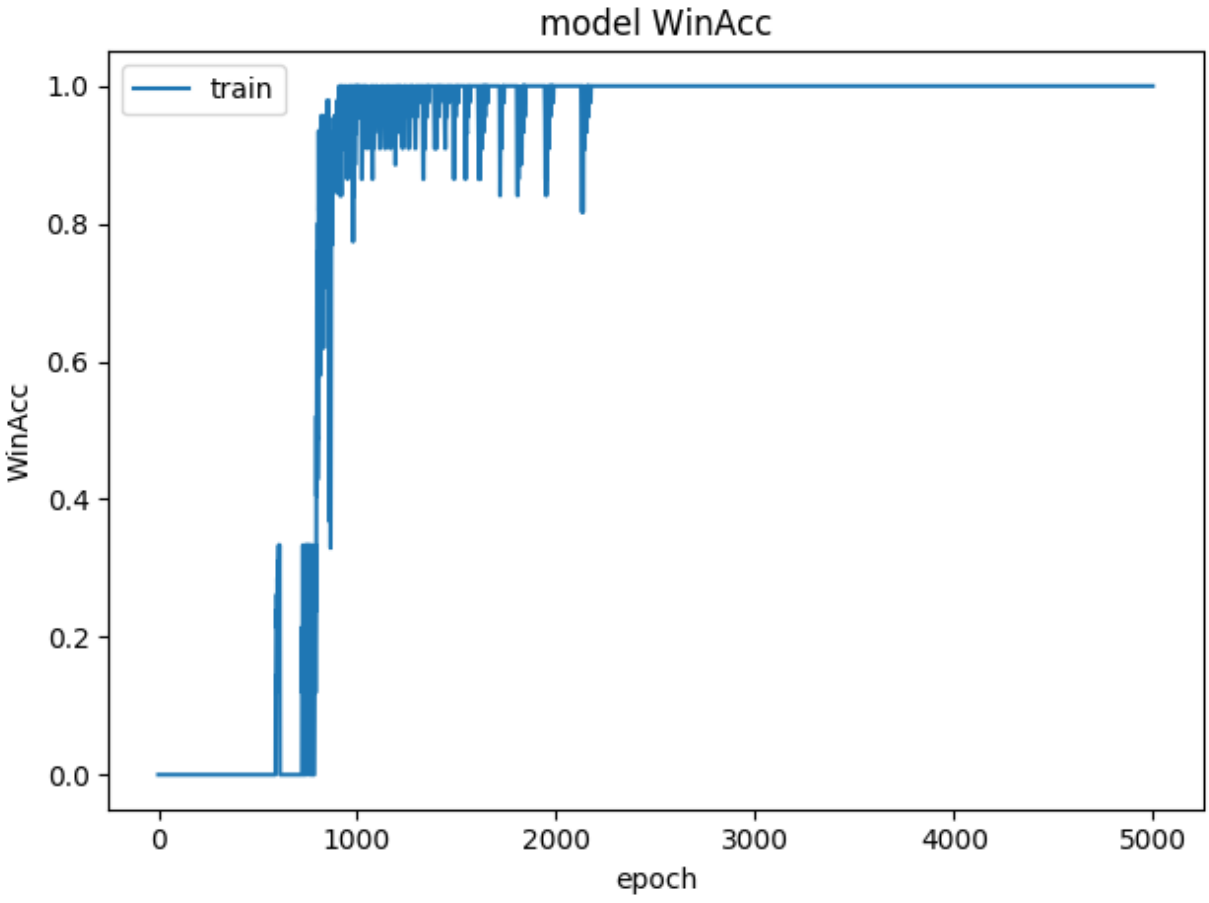


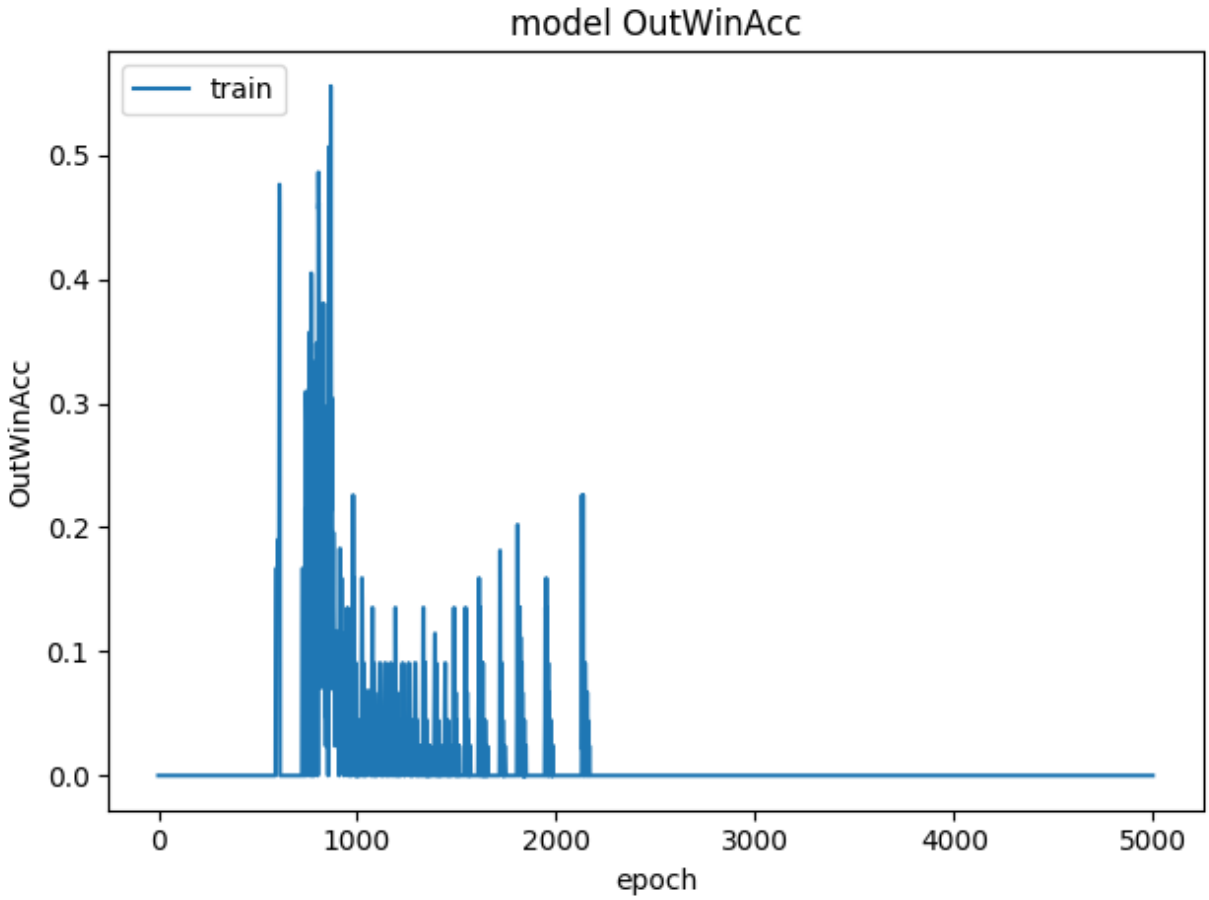


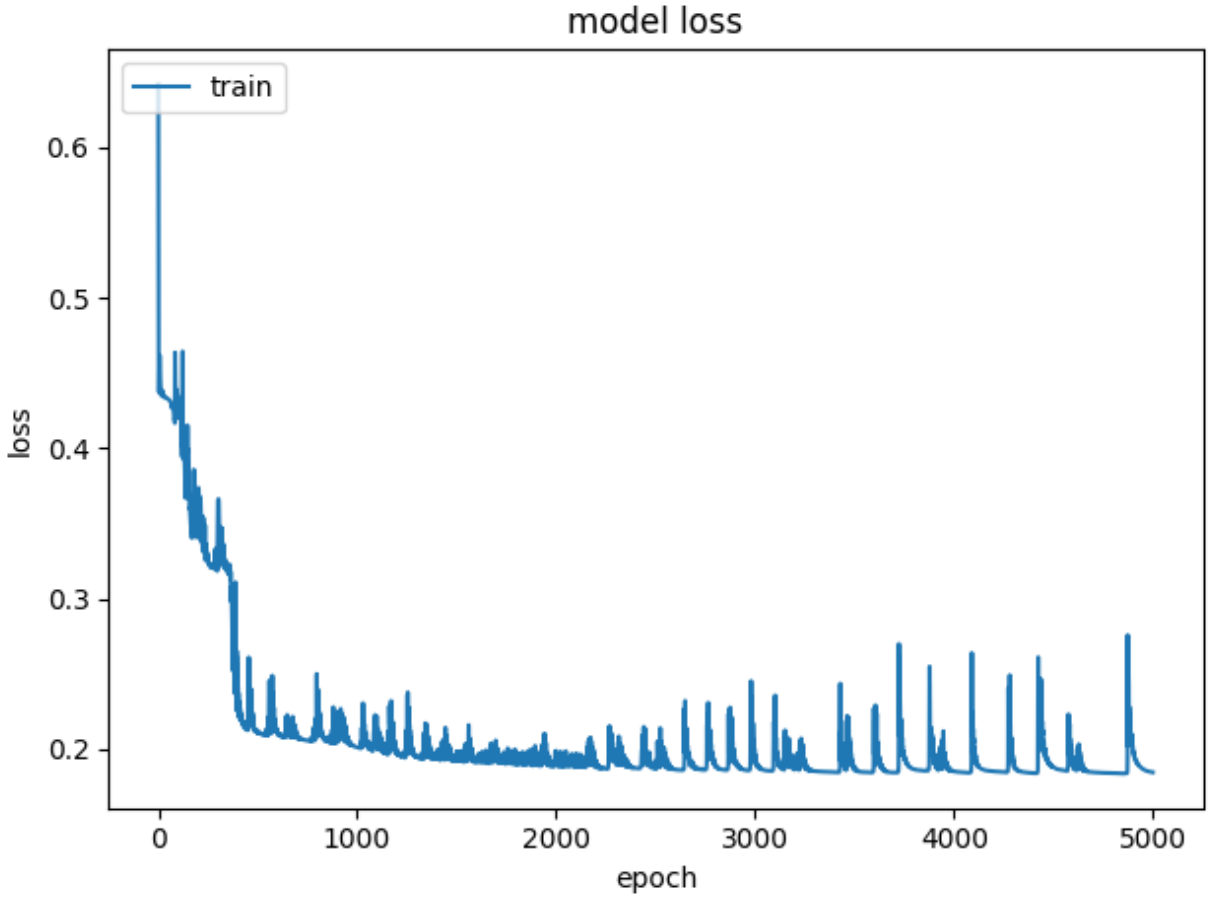

6. 3 instance 3 données

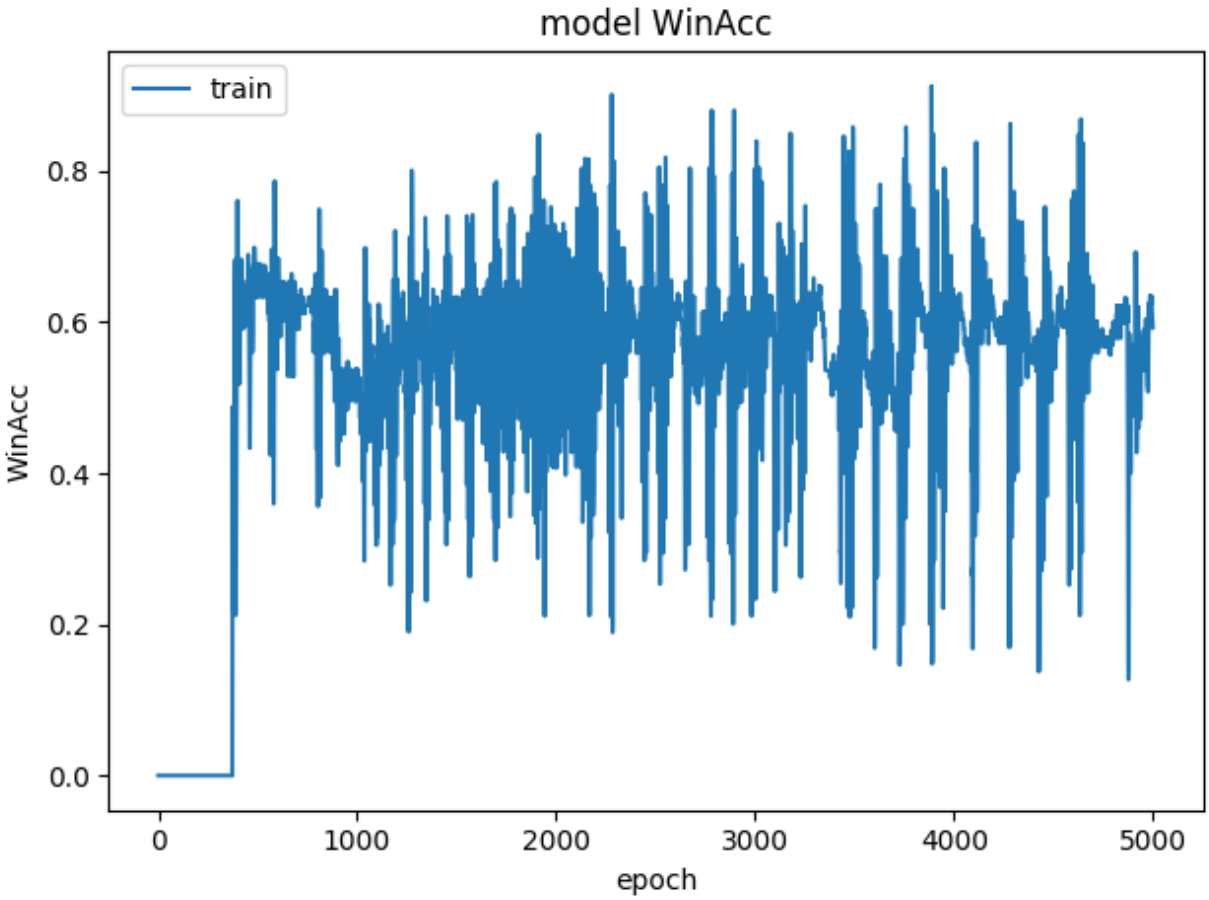

model loss
train
loss
epoch
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0
1000
2000
3000
4000
5000

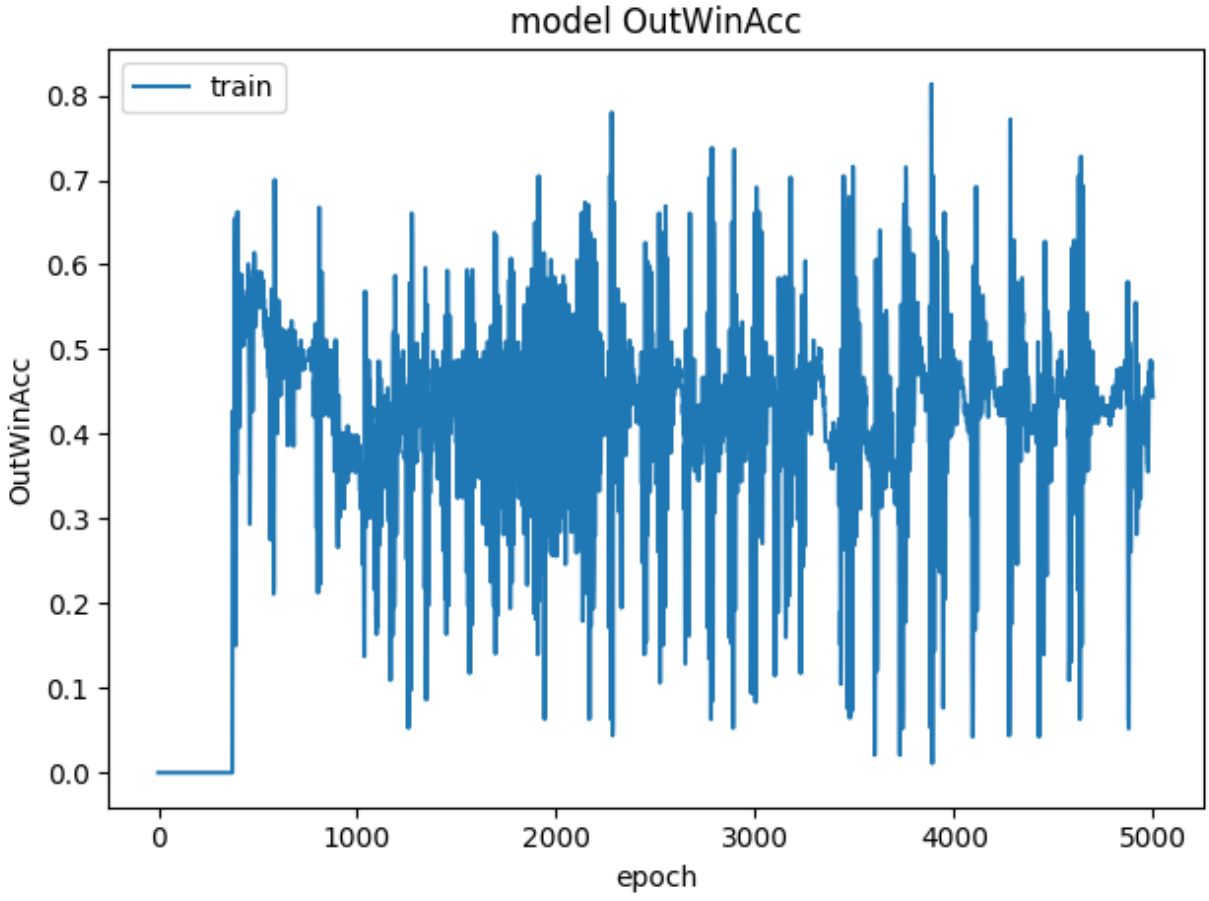

model WinAcc
train
WinAcc
epoch
0.0
0.2
0.4
0.6
0.8
1.0
0
1000
2000
3000
4000
5000




7. 3 instance 6 données

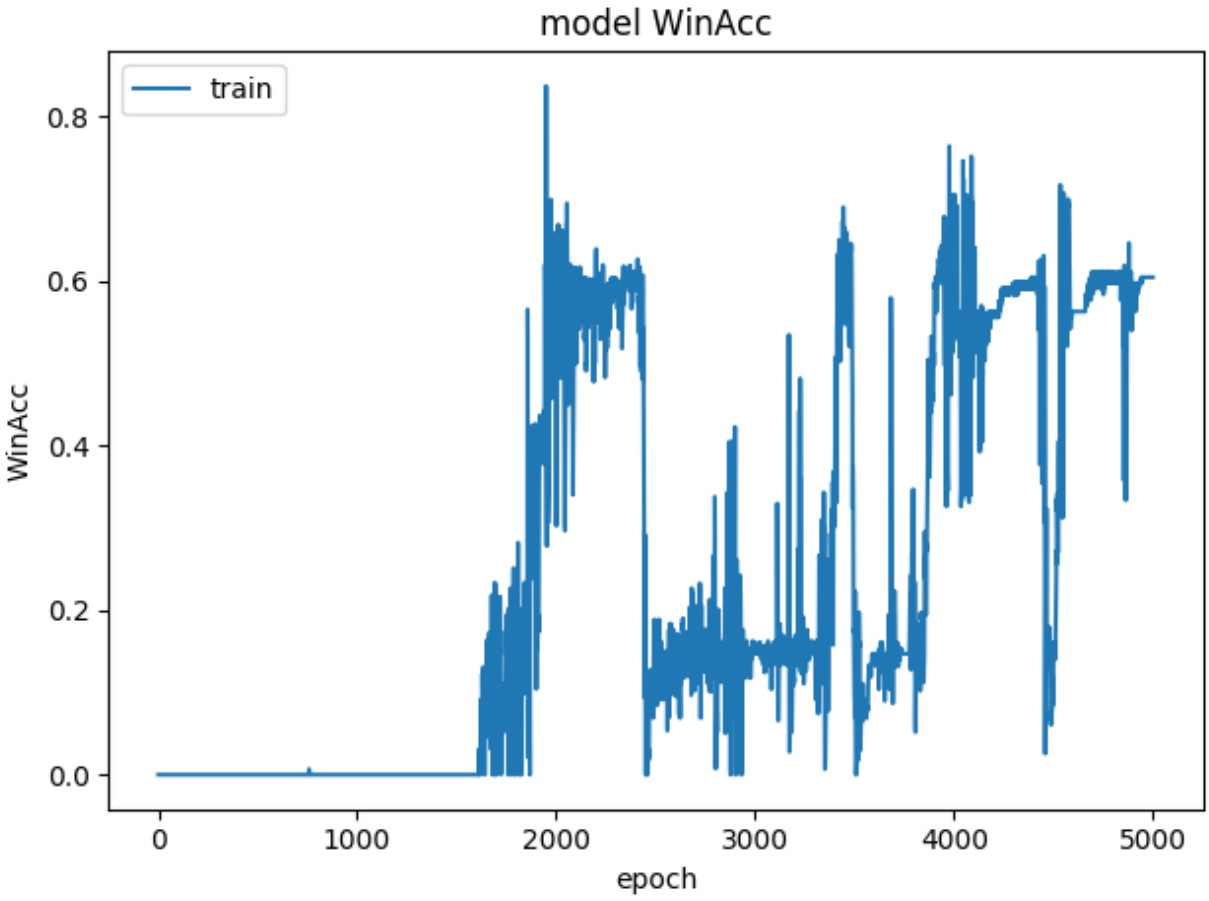


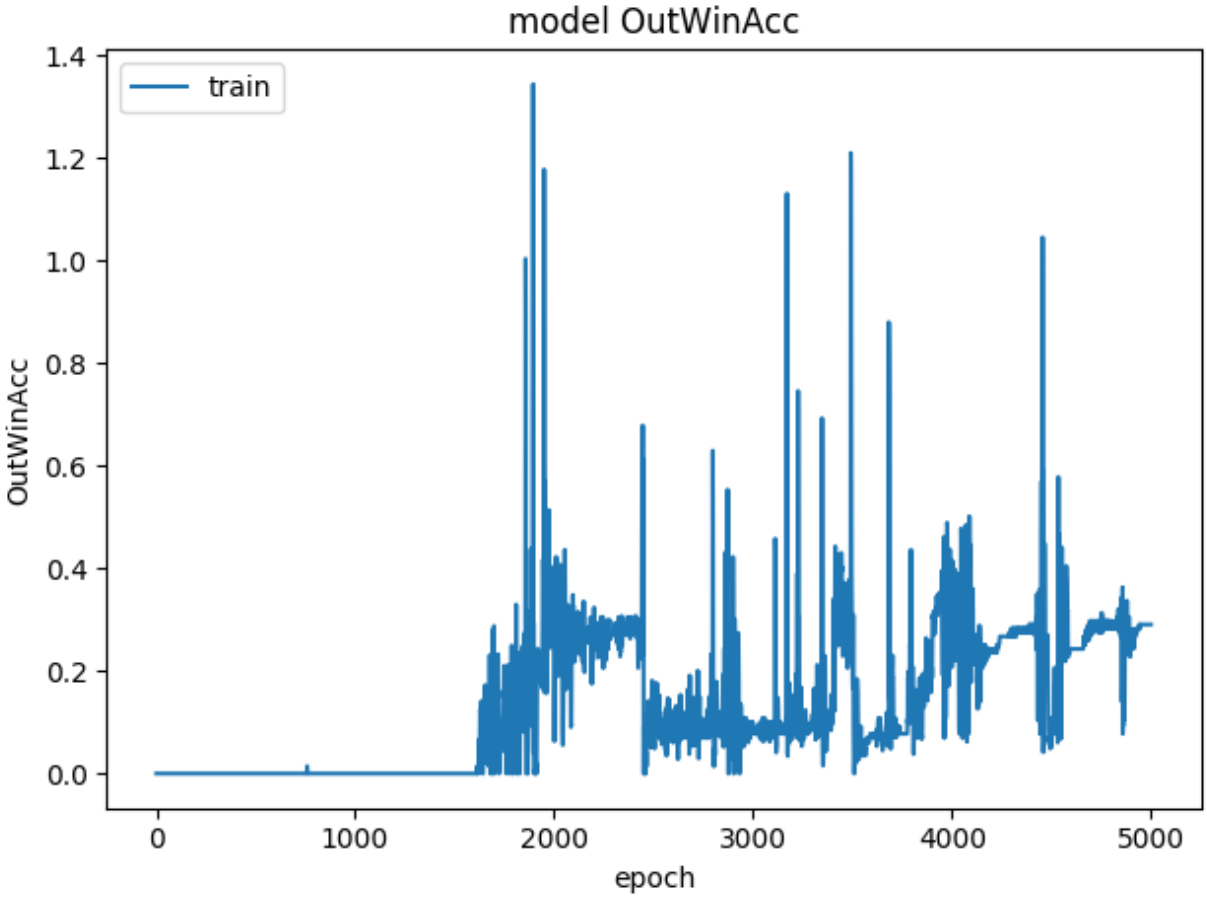



8. 3 instance 9 données


model loss
train
loss
epoch
1.0
0.8
0.6
0.4
0.2
0
1000
2000
3000
4000
5000


model WinAcc
train
WinAcc
epoch
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
5000


model OutWinAcc
train
OutWinAcc
epoch
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0
1000
2000
3000
4000
5000