



# CRÉEZ UN OUTIL DE VISUALISATION POUR UN RÉSEAU NEURONAL CONVOLUTIF

CHEMS / ALICIA

# OBJECTIF

Création d'un outil de pour expliquer le fonctionnement d'un réseau de neurones

3 versions de l'application:

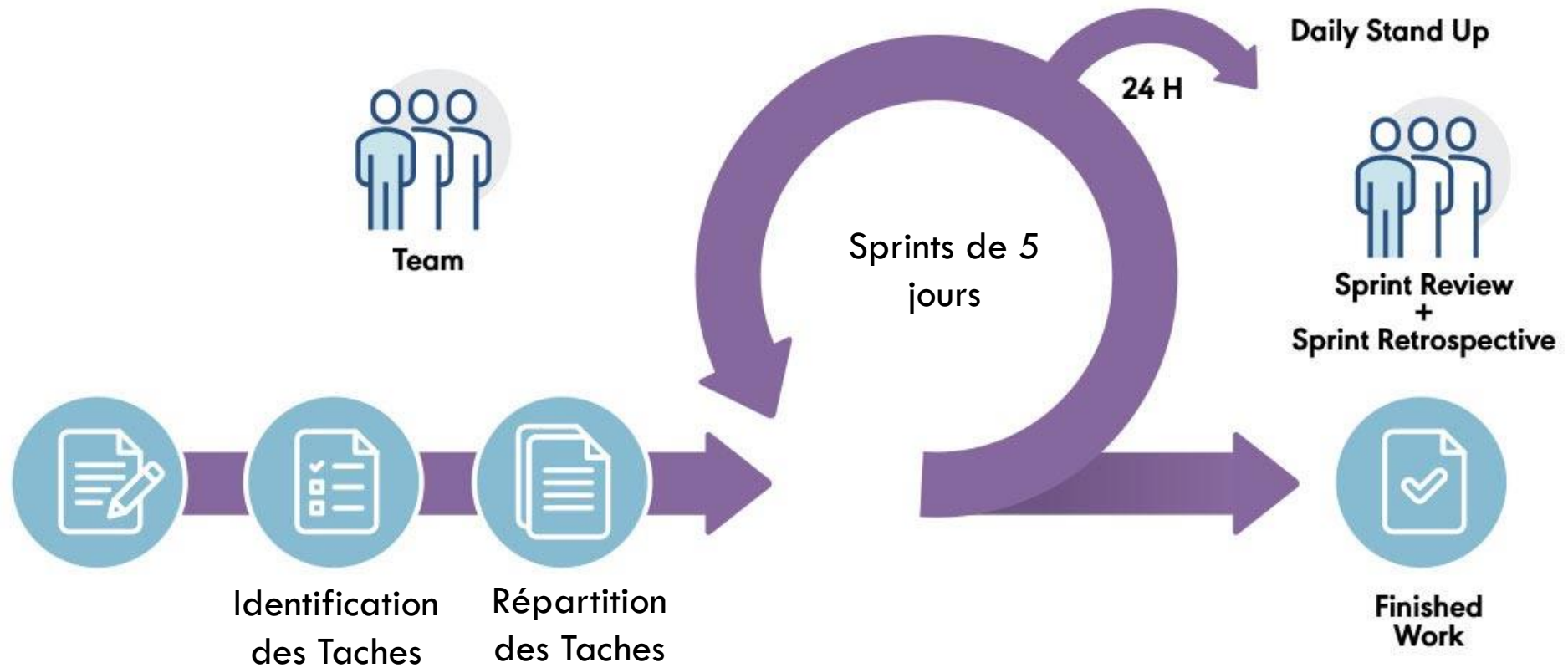
- Prédire un chiffre
- Prédire un chiffre d'après le dessin
- Visualisation des neurones

The background is a dark teal gradient. In the corners, there are white line-art illustrations of circuit boards or neural network connections. These lines branch out from the edges, ending in small circles, resembling a stylized circuit or a neural network diagram.

# PRÉSENTATION DE L'APPLICATION

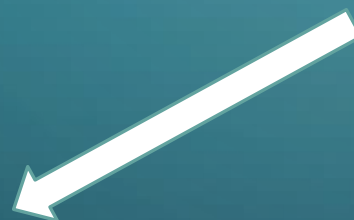
# ORGANISATION

## SCRUM PROCESS





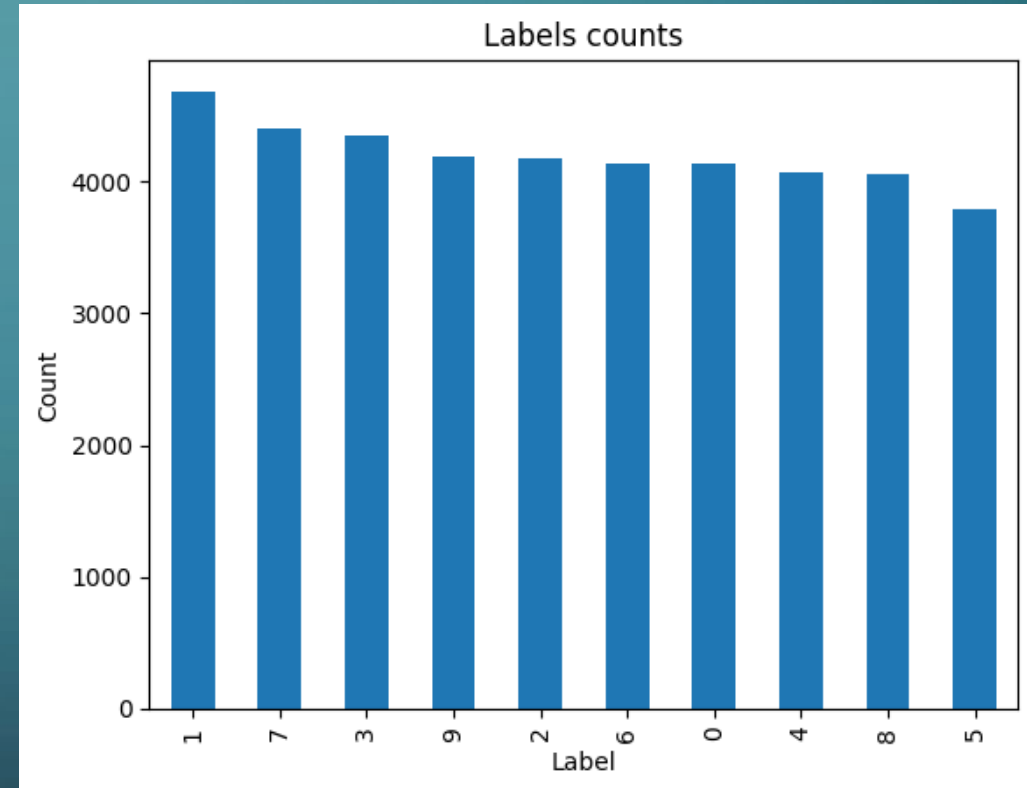
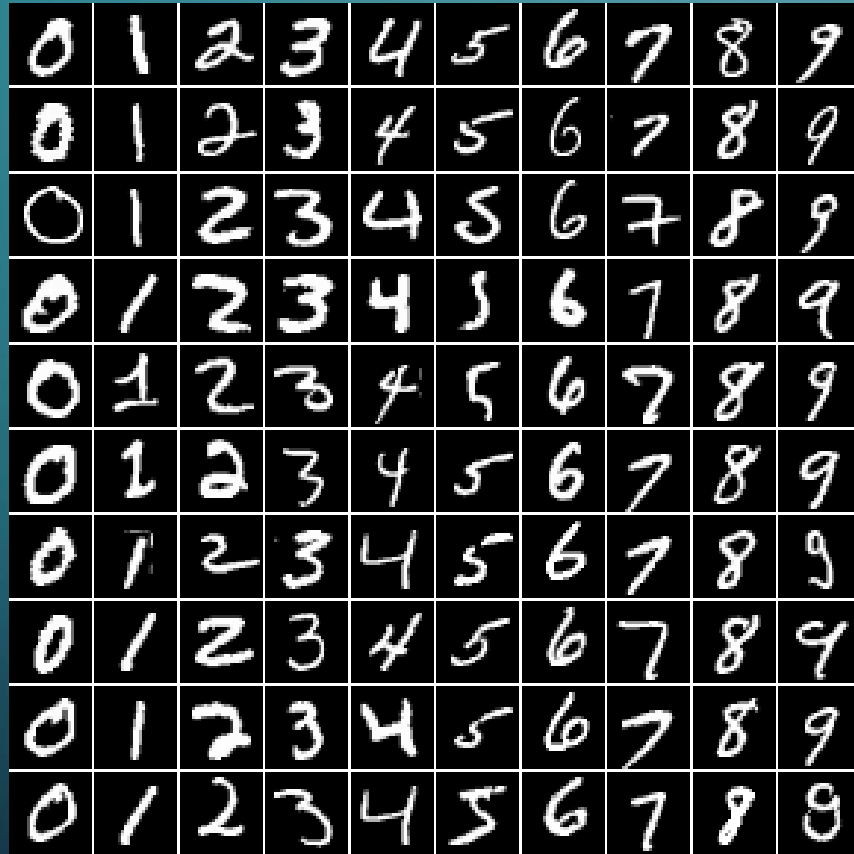
Streamlit



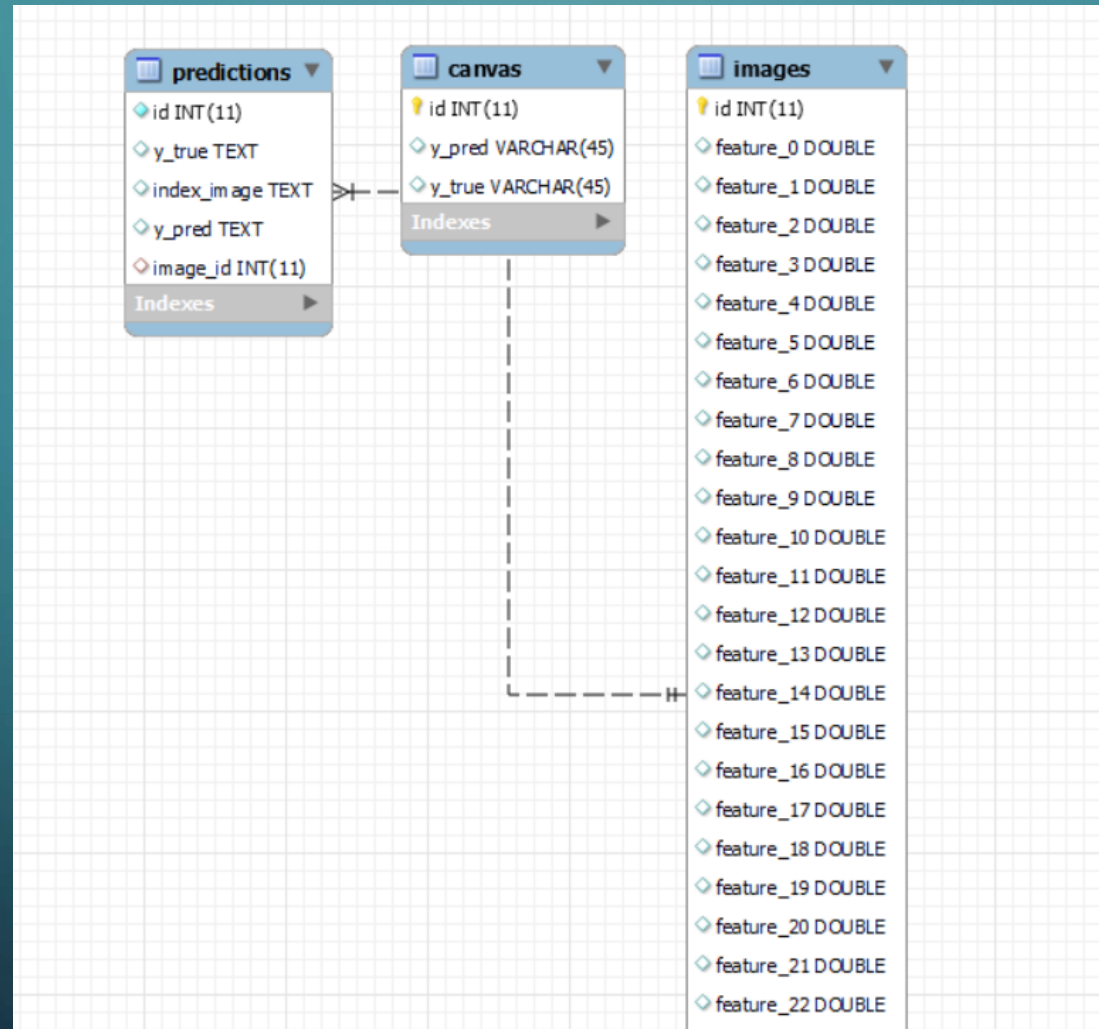
Prédiction



# DONNÉ D'ENTRAINEMENT DU MODEL

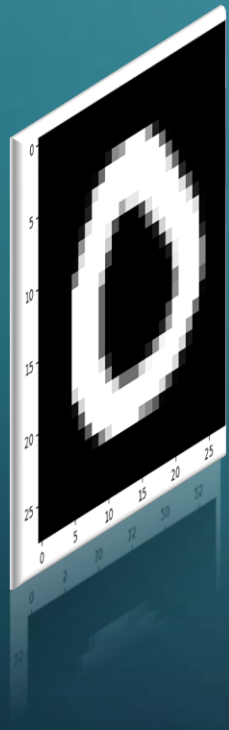


# BASE DE DONNÉ



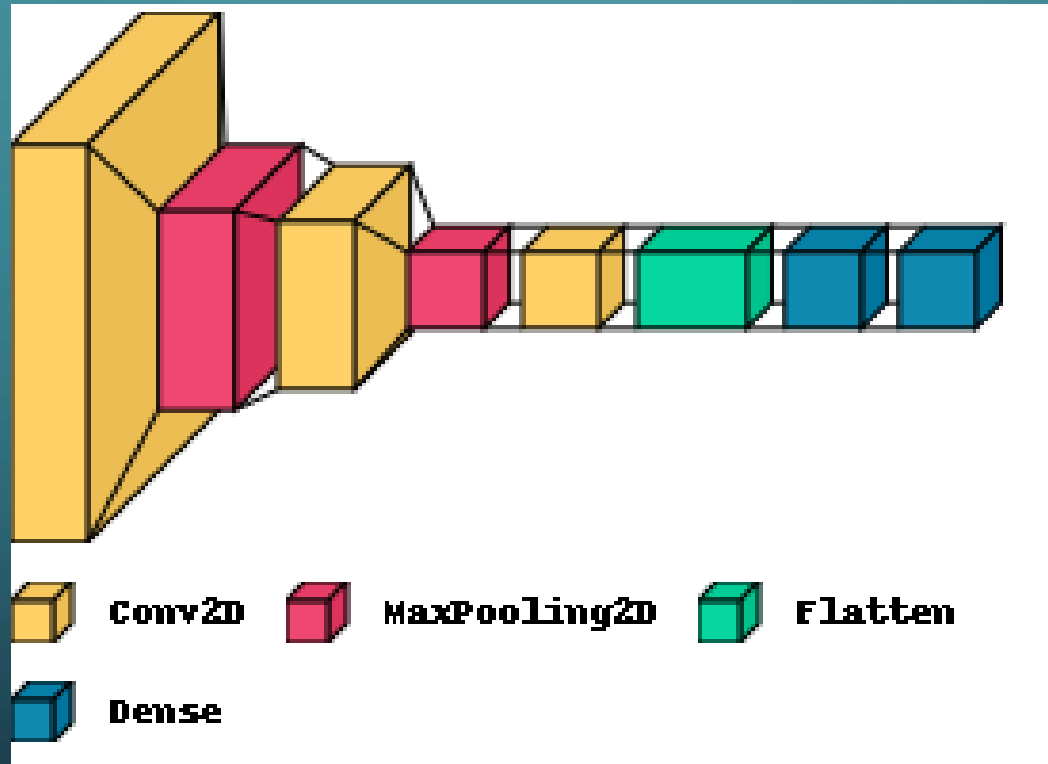
# MODEL

Input



Feature extraction

Classifier



Output

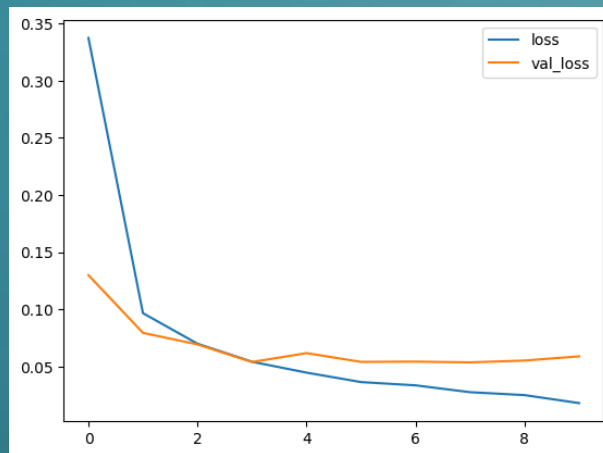


Prédiction:  
0

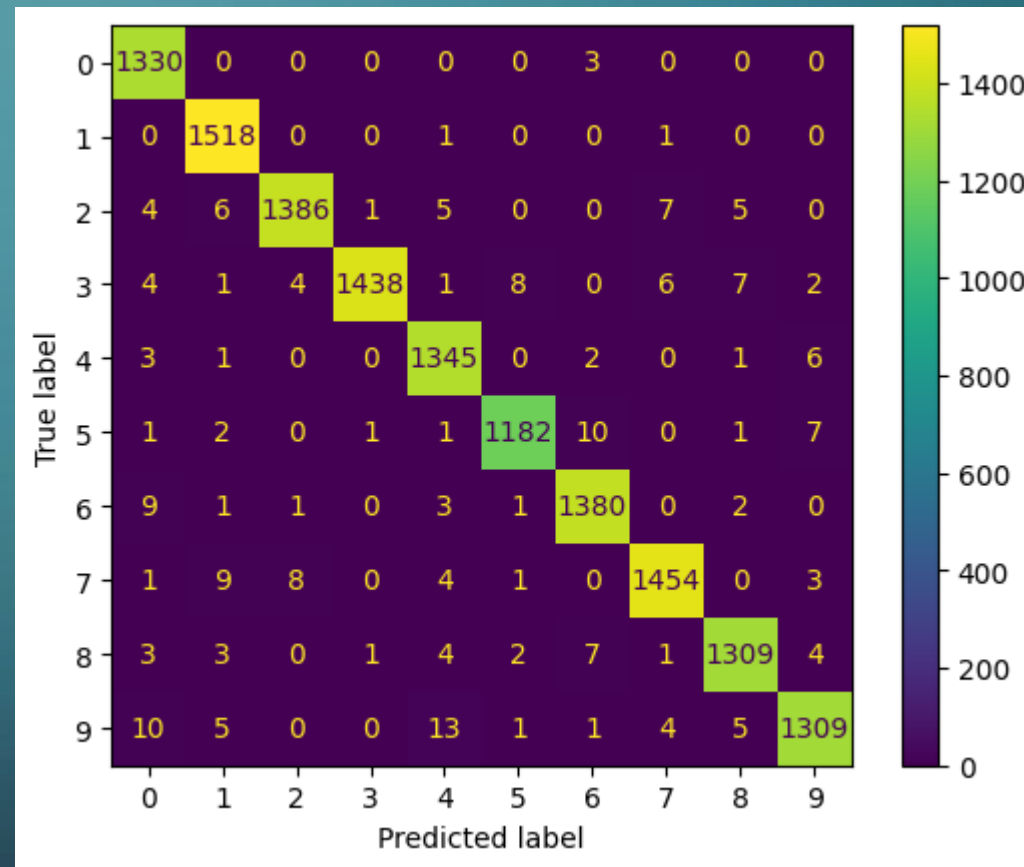
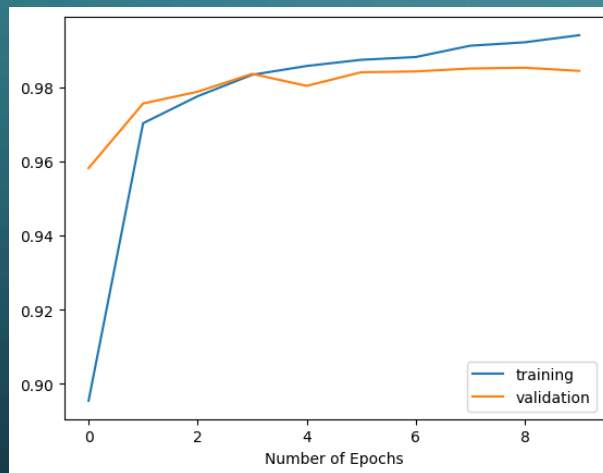


# EVALUATION DU MODÈLE

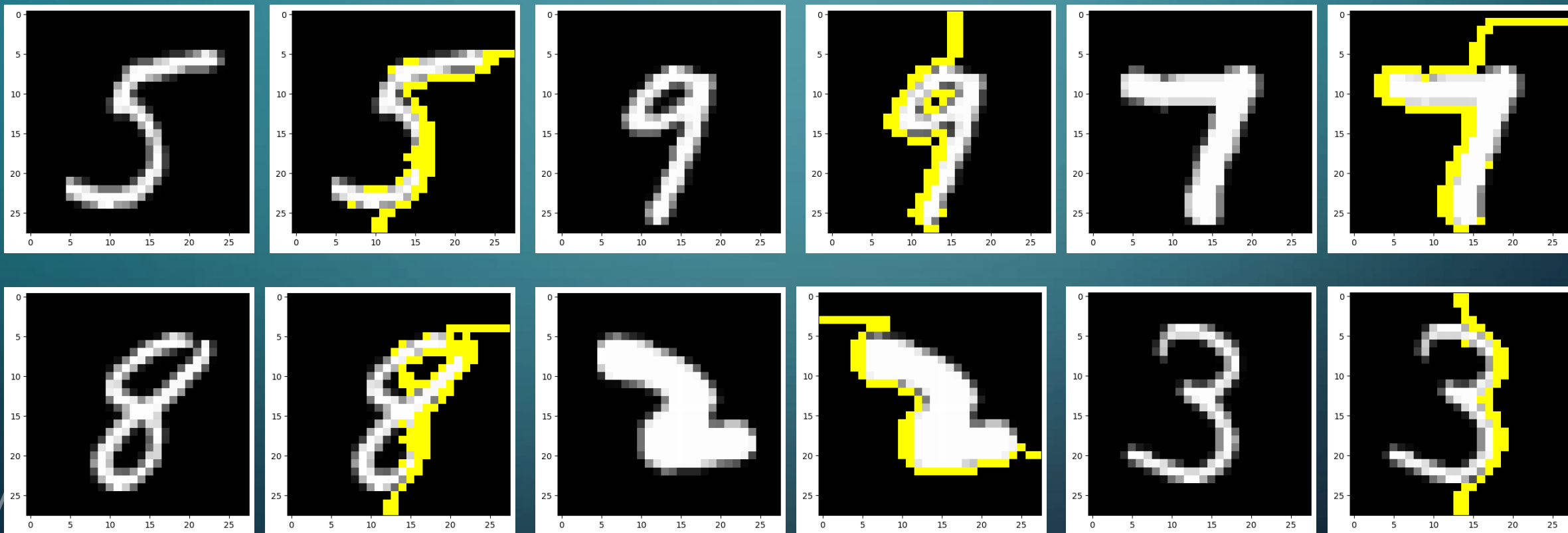
Loss



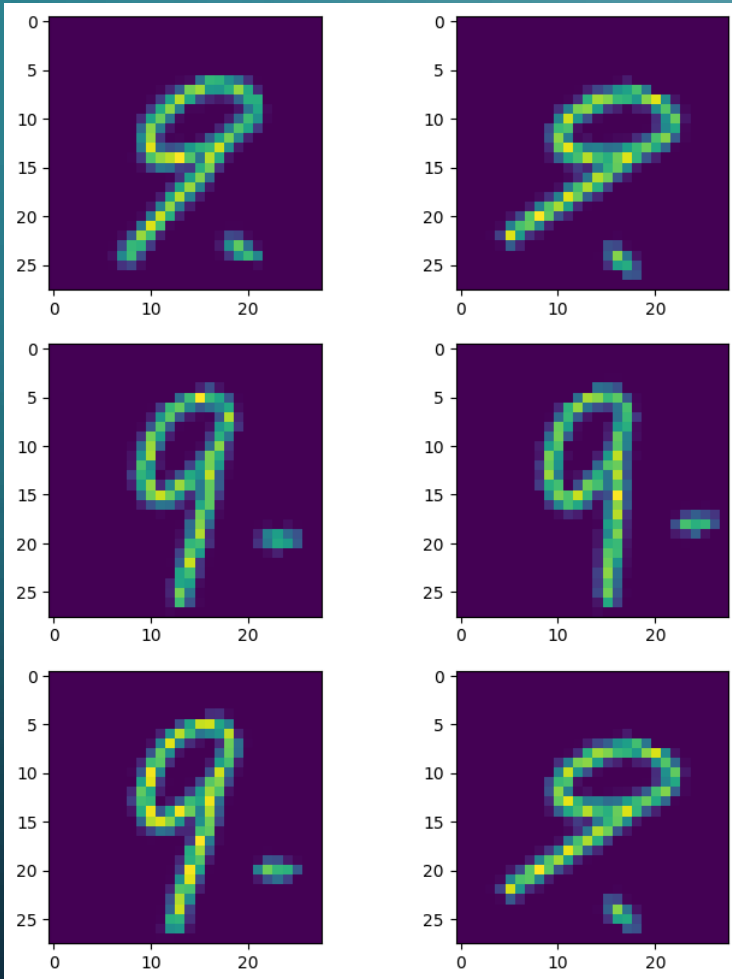
Accuracy



# EXPLICABILITÉ DU MODEL AVEC LIME



# DATA AUGMENTATION



Utilisation des Random Rotation

# PERSPECTIVES

- Tester d'autre architecture
- Amélioration du model
- Transfer Learning
- Déploiement total
- Refaire l'application sur Django

