

Weekly standup 1 : Auto-encodeur variationnel (MNIST dataset)

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Principe général de l'auto-encodeur variationnel

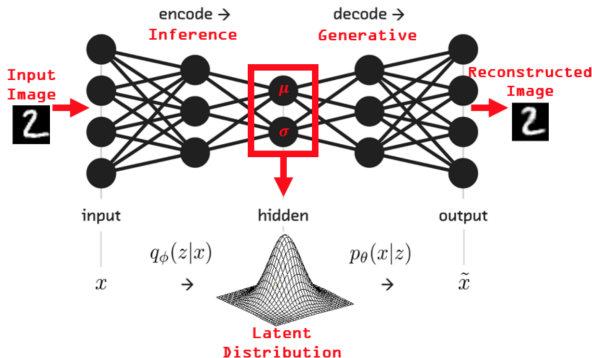


FIGURE – Schéma de principe de l'auto-encodeur variationnel

Architecture des réseaux implémentés

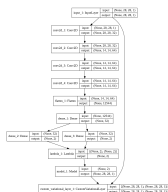


FIGURE – Full VAE architecture



FIGURE – Decoder architecture

Fonction perte

$$J_{VAE} = J_{identity} + J_{stability} \quad (1)$$

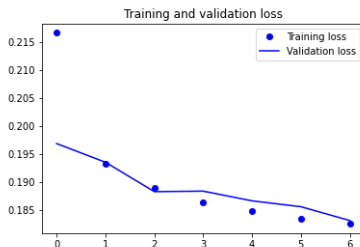


FIGURE – Évolution de la fonction perte

Résultats

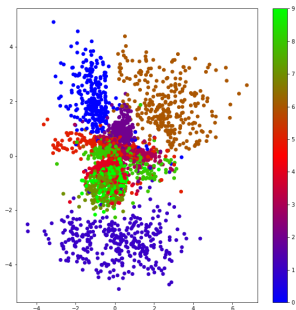


FIGURE – Latent representation for clustering

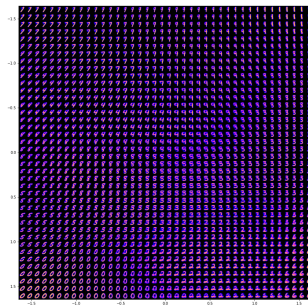


FIGURE – Latent representation for generation

Perspectives d'amélioration

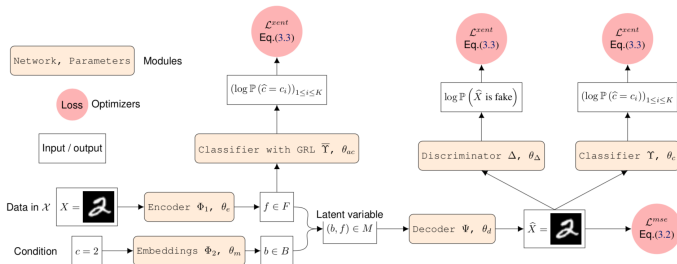


FIGURE – Full fibered GAN architecture