## What I know

Tom Rochette < tom.rochette@coreteks.org >

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- 0.1 Context
- 0.2 Learned in this study
- 0.3 Things to explore

## 1 Overview

Topic (Confidence)

- Artificial neural network (80%)
- Layer (100%)
- Activation functions (60%)
- Forward propagation (60%)
- Back propagation (20%)
- Loss metric
  - Binary cross entropy (50%)
  - Categorical cross entropy (40%)
- Optimizer
  - SGD
  - RMSProp
  - Adam
  - NAdam
  - Adamax
  - Adadelta
  - Adagrad
- RNN (30%)
  - GRU (5%)
  - LSTM (5%)
- CNN (40%)
- DNN (50%)
- Autoencoder (AE) (10%)
  - Variational autoencoder (VAE) (5%)
- Generative adversarial network (GAN)
- Reinforcement learning (20%)
  - Value policy (20%)
  - Action-value policy (20%)
  - Q-learning (0%)
  - A3C
- Data augmentation (30%)
  - Image (40%)
  - Text
  - Data

- Common problems
  - Regression (40%)
  - Classification (50%)
  - Sequence translation
  - Sequence recognition
  - Speech recognition (STT)
  - Handwriting recognition (50%)
  - Speech generation (TTS)
  - Object recognition from images
  - Object recognition from video
- Network operations
  - Pooling
- Natural language processing
- Linear algebra (60%)

## 2 See also

## 3 References