

Introduction to deep learning

Puteaux, Fall/Winter 2020-2021

```
#####  
##                               ##  
## Deep Learning in Python  ##  
##                               ##  
#####
```

§1 Introduction to Deep Learning in Python

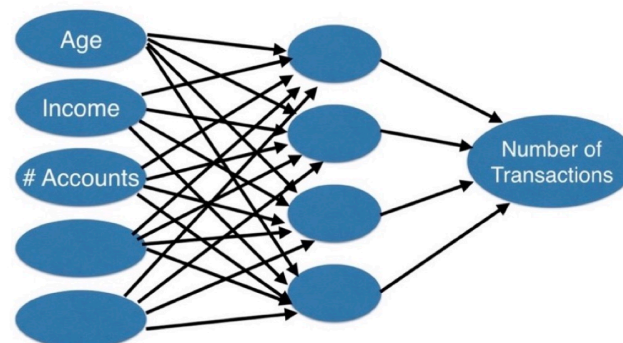
§1.1 Basics of deep learning and neural networks

1 Introduction to deep learning

1.1 What is the value of interactions for neural networks?

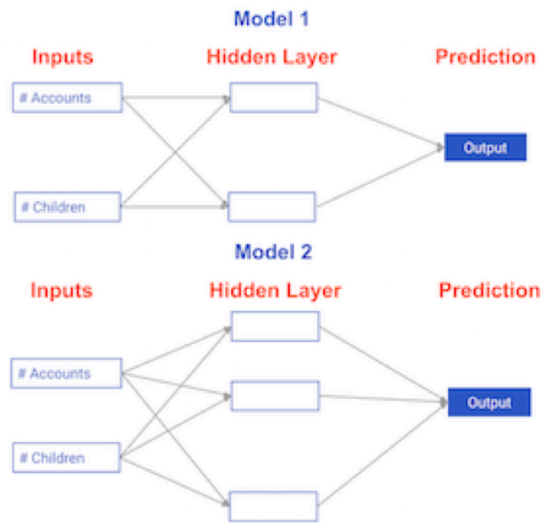
Deep learning uses especially powerful neural networks with almost anything such as *text*, *images*, *videos*, *audio*, or *source code* because neural networks really well account for interactions.

1.2 How do interactions work in neural networks?



1.3 Practice question for comparing neural network models to classical regression models:

- Which of the models in the diagrams has greater ability to account for interactions?



- ☐ Model 1.
- ☒ Model 2.
- ☐ They are both the same.