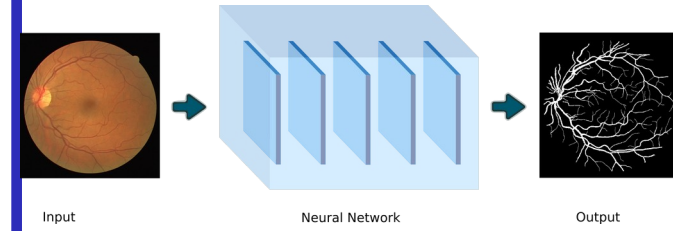


# Introduction to Deep Learning

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Segmentation of the vascular network in retinal images



Face imagined by a Neural Network  
StyleGAN2 (Dec 2019) - Karras et al. and Nvidia

Deep learning has shown its strength in many fields such as image processing. With a large dataset, it is possible to learn an implicit function to solve a complex problem without requiring application-related expert knowledge.

Many neural network architectures has been proposed over the years. However the goal is the same: learn the parameters of this architecture by optimizing a loss function related to the task of interest.

In this presentation, I will introduce basic concepts in deep learning and illustrate them through image processing applications. Finally I will present a few user-friendly deep learning frameworks that are interesting to start in deep learning.

**Talk in French, Slides in English**