OVERVIEW

Deep Learning Pre-Work

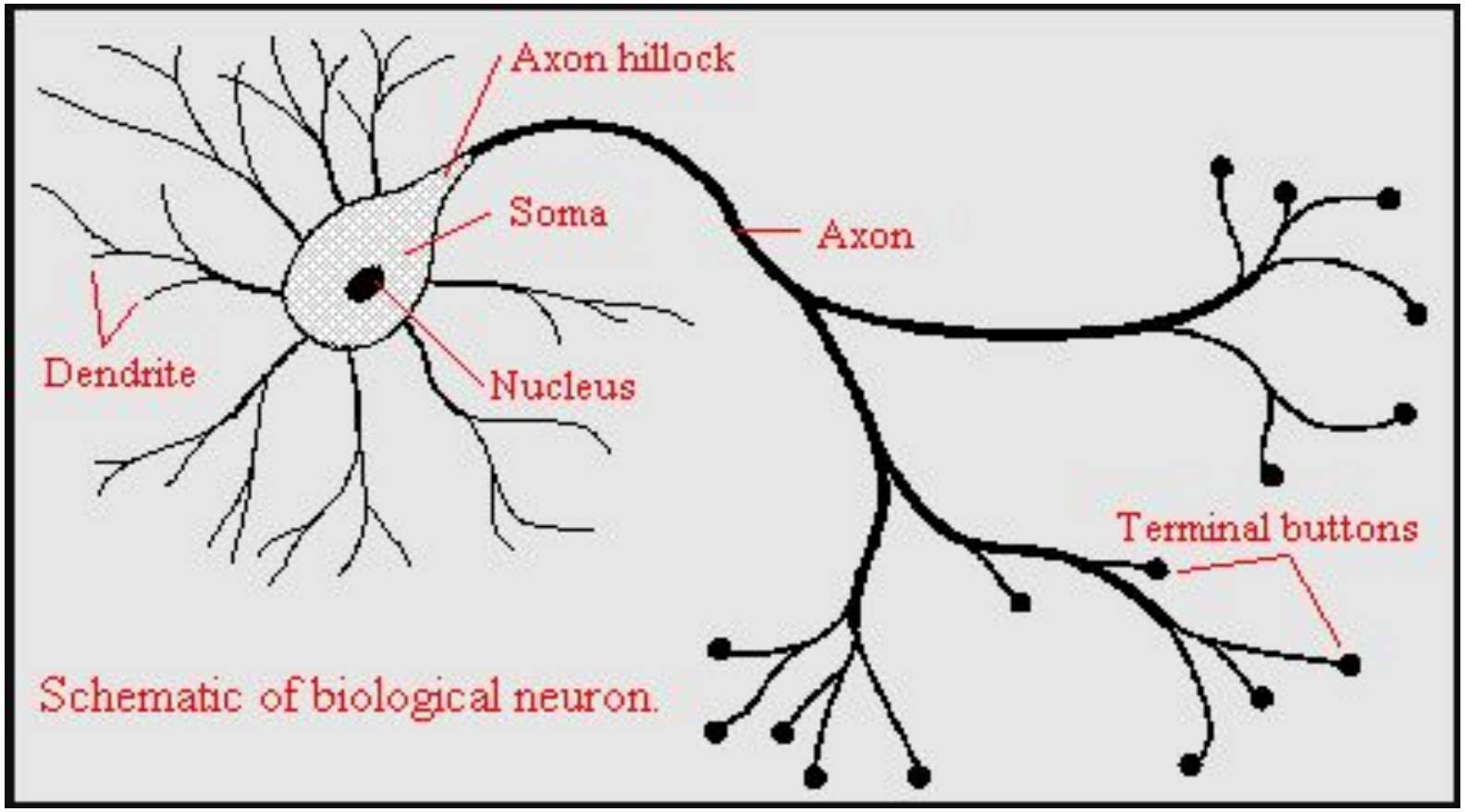
This file is meant for personal use by tinlong@iscopedesign.com only.
Sharing or publishing the contents in part or full is liable for legal action.

Agenda

- Introduction
- Use Cases
- Pre-work Overview

This file is meant for personal use by tinlong@iscopedesign.com only.
Sharing or publishing the contents in part or full is liable for legal action.
Proprietary content. © Great Learning. All Rights Reserved. Unauthorized use or distribution prohibited.

The Biological Neuron



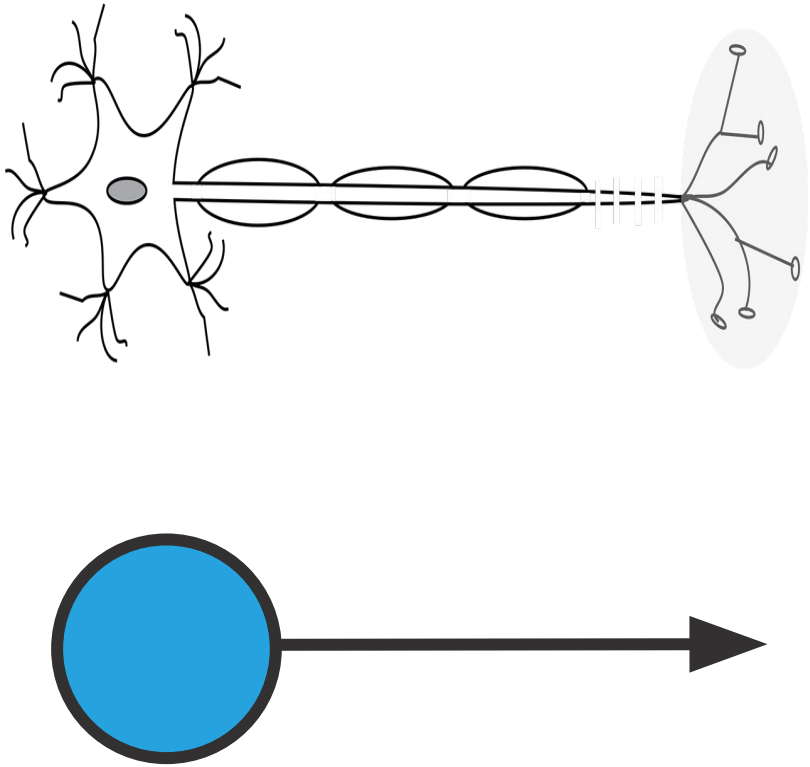
Source: Wikimedia Commons

This file is meant for personal use by tinlong@iscopedesign.com only.
Sharing or publishing the contents in part or full is liable for legal action.
Proprietary content. © Great Learning. All Rights Reserved. Unauthorized use or distribution prohibited.

The Human Brain

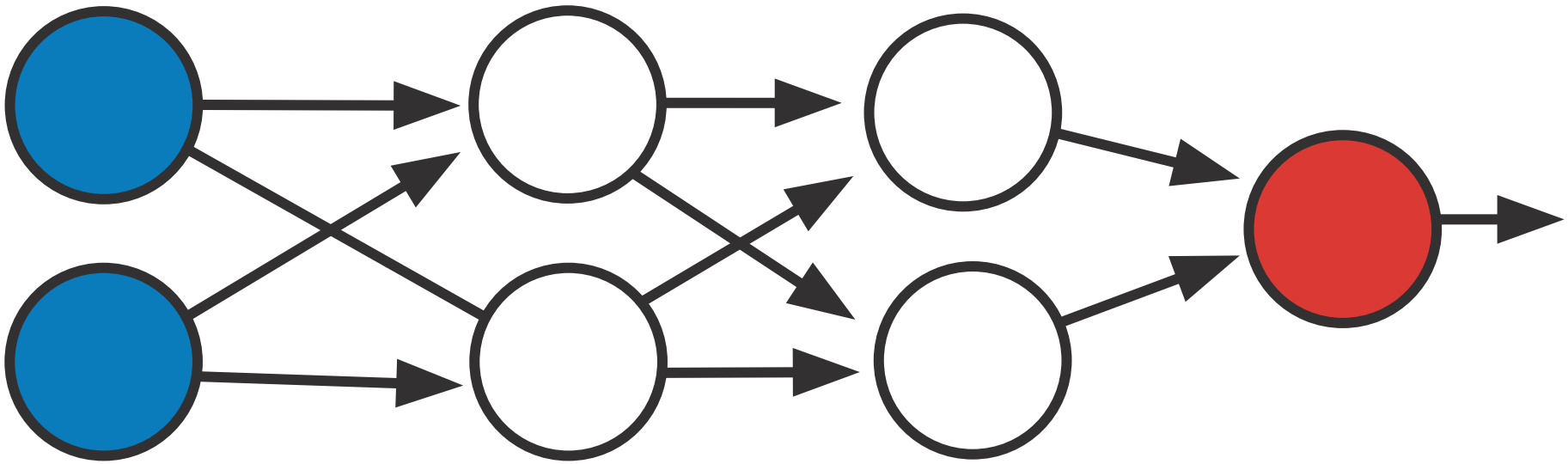
This file is meant for personal use by tinlong@iscopedesign.com only.
Sharing or publishing the contents in part or full is liable for legal action.
Proprietary content. © Great Learning. All Rights Reserved. Unauthorized use or distribution prohibited.

Biological vs Artificial Neurons



This file is meant for personal use by tinlong@iscopedesign.com only.
Sharing or publishing the contents in part or full is liable for legal action.
Proprietary content. © Great Learning. All Rights Reserved. Unauthorized use or distribution prohibited.

Deep Learning



This file is meant for personal use by tinlong@iscopedesign.com only.
Sharing or publishing the contents in part or full is liable for legal action.
Proprietary content. © Great Learning. All Rights Reserved. Unauthorized use or distribution prohibited.

Use Cases

This file is meant for personal use by tinlong@iscopedesign.com only.
Sharing or publishing the contents in part or full is liable for legal action.
Proprietary content. © Great Learning. All Rights Reserved. Unauthorized use or distribution prohibited.

Sephora

SEPHORA

Source: Wikimedia Commons

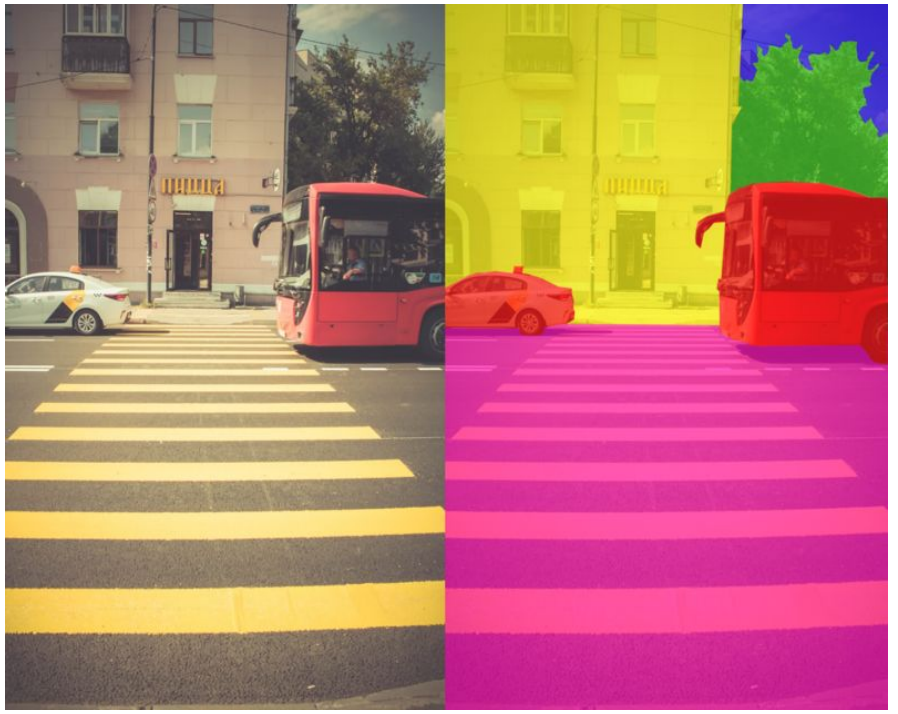
This file is meant for personal use by tinlong@iscopedesign.com only.
Sharing or publishing the contents in part or full is liable for legal action.
Proprietary content. © Great Learning. All Rights Reserved. Unauthorized use or distribution prohibited.

Google DeepMind

Source: Wikimedia Commons

This file is meant for personal use by tinlong@iscopedesign.com only.
Sharing or publishing the contents in part or full is liable for legal action.
Proprietary content. © Great Learning. All Rights Reserved. Unauthorized use or distribution prohibited.

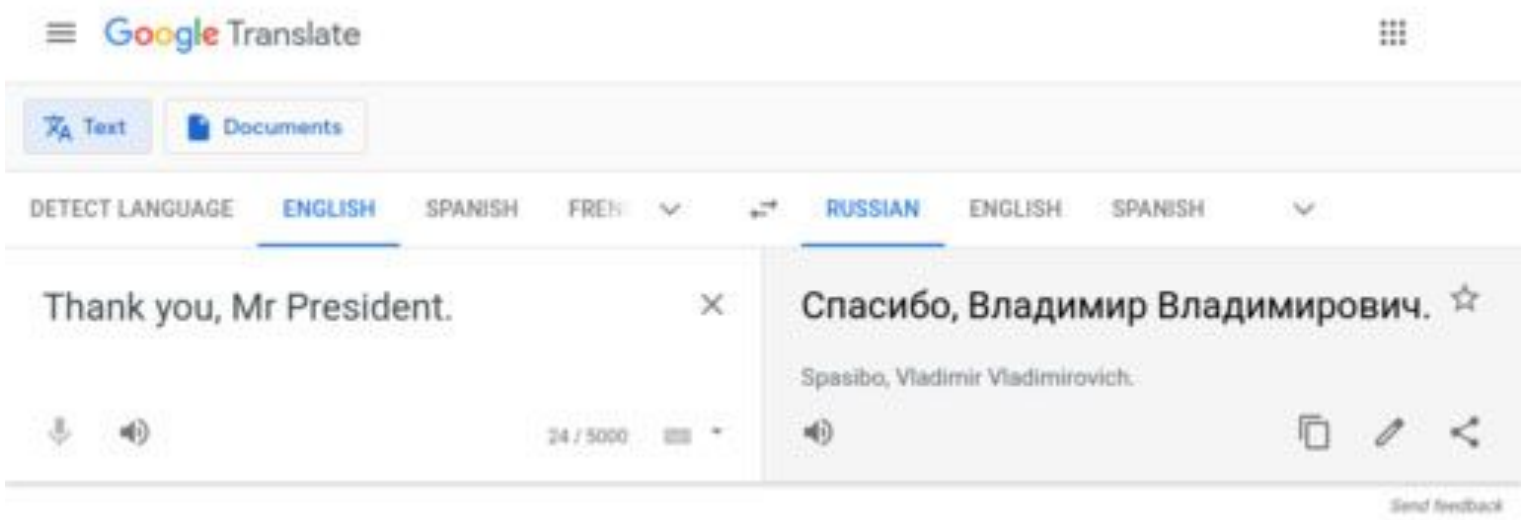
Tesla



Source: Wikimedia Commons

This file is meant for personal use by tinlong@iscopedesign.com only.
Sharing or publishing the contents in part or full is liable for legal action.
Proprietary content. © Great Learning. All Rights Reserved. Unauthorized use or distribution prohibited.

Google Translate



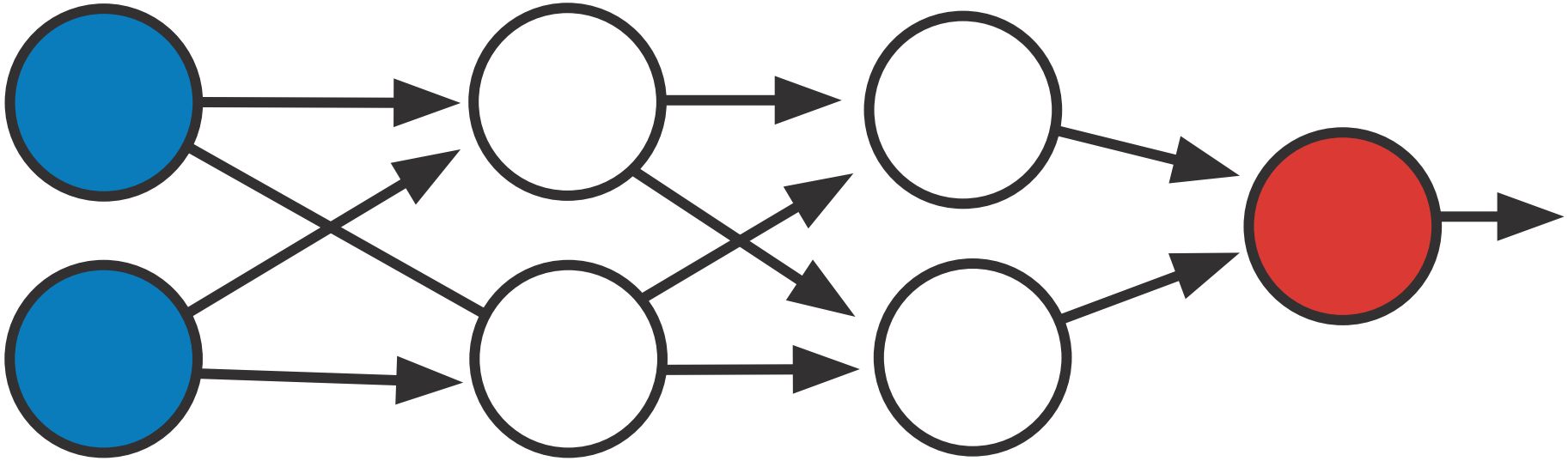
Source: Wikimedia Commons

This file is meant for personal use by tinlong@iscopedesign.com only.
Sharing or publishing the contents in part or full is liable for legal action.
Proprietary content. © Great Learning. All Rights Reserved. Unauthorized use or distribution prohibited.

Pre-work Overview

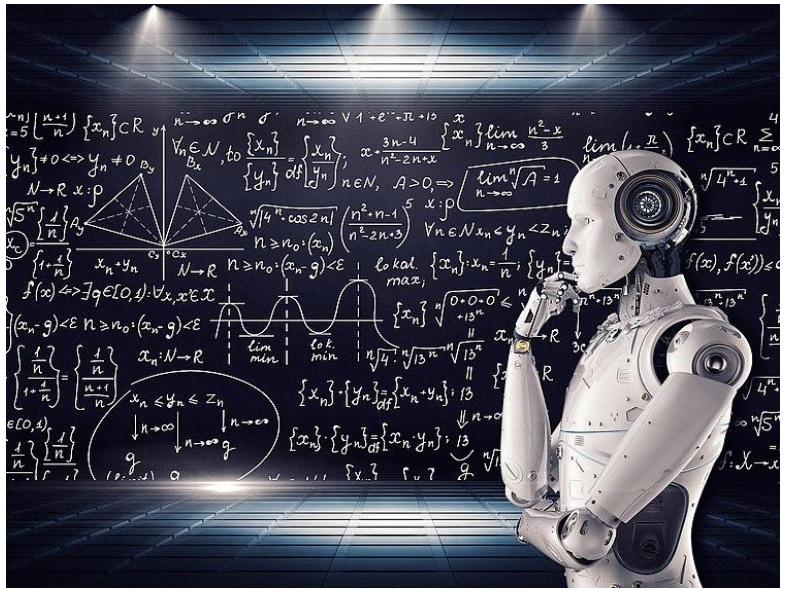
This file is meant for personal use by tinlong@iscopedesign.com only.
Sharing or publishing the contents in part or full is liable for legal action.
Proprietary content. © Great Learning. All Rights Reserved. Unauthorized use or distribution prohibited.

Neurons and Layers



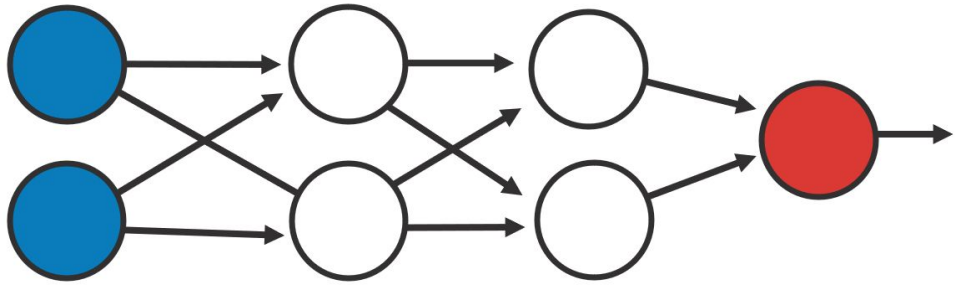
This file is meant for personal use by tinlong@iscopedesign.com only.
Sharing or publishing the contents in part or full is liable for legal action.
Proprietary content. © Great Learning. All Rights Reserved. Unauthorized use or distribution prohibited.

Machine Learning



Source: Wikimedia Commons

Hyperparameter Selection



Source: Wikimedia Commons

What part of the architecture machine learning learns, and what hyperparameters can be controlled

This file is meant for personal use by tinlong@iscopedesign.com only.
Sharing or publishing the contents in part or full is liable for legal action.
Proprietary content. © Great Learning. All Rights Reserved. Unauthorized use or distribution prohibited.

Math

Code

Source: Wikimedia Commons

This file is meant for personal use by tinlong@iscopedesign.com only.
Sharing or publishing the contents in part or full is liable for legal action.
Proprietary content. © Great Learning. All Rights Reserved. Unauthorized use or distribution prohibited.