Projects

Etienne Renault

5 mai 2019

https://www.lrde.epita.fr/~renault/teaching/algorep/

Forewords

- Team of 3 (no more, no less)
- In a *mainstream* programming language
- Use MPI [1] (only message passing, not RMA)
- Defense :
  - **Talk** : 10 minutes
  - **Demo** : 5 minutes
  - **Questions** : 5 minutes
- Due : In July (to be fixed)

Choose **one** of the following
or propose your idea (to be validated before May, 20th)

1. `https://www.open-mpi.org/nightly/v4.0.x/`

Forewords

Your projetct must contain a client side and a server side, i.e. you provide a parametrized library for the server part

Your projetct will be reviewed !

Grade

85% defense, 15% code

Forewords

You must find the correct application for the Demo

You must be able to change quickly number processes for clients or server

Take care of the number of exchanged messages !

Distributed Malloc

Allocation/Read/Write on multiple computers.

Client :

- Ask for an allocation/deallocation (uniq element of multiple elements)
- Ask for modification of a specific element

Server :

- Manage an area of memory
- Manage client request

Distributed FileSystem

Create/Remove/delete files on multiple computers

Client :

- CRUD on a File

Server :

- Manage a set of files
- Manage client requests

Distributed Image Processing

Erosion/dilation using multiple structuring elements

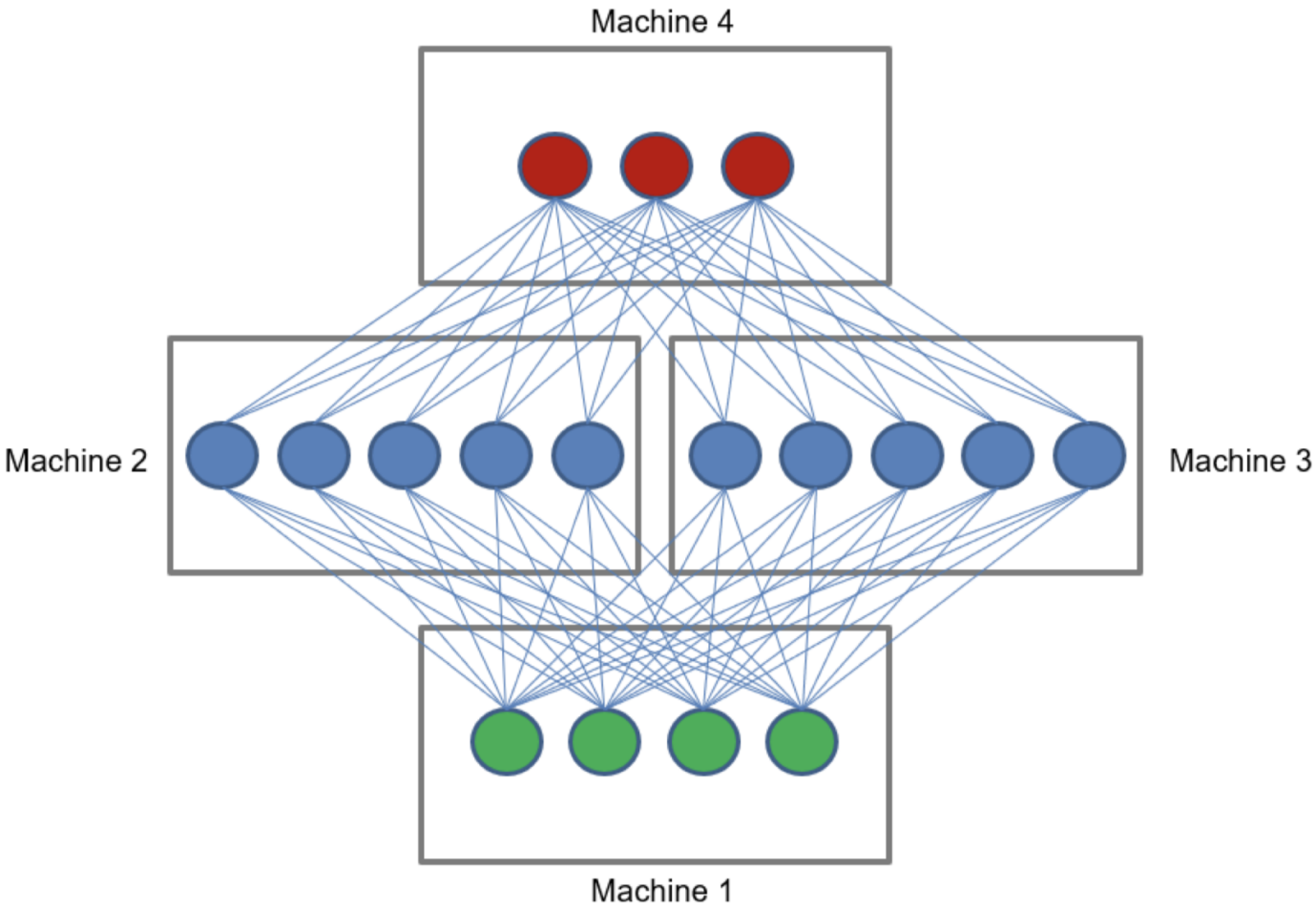
Client :

- Ask for loading Image (warning the image cannot be stored by a single server node)
- Ask for Erosion / Dilation
- Display result

Server :

- Load Image from file
- Manage client requests

Distributed Neural network



Bitcoin+Blockchain

TOFIX