Project plan internship

LaBRI

Iris Loret

Content

- Who?
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- Communication

Who?

LaBRI

- Research lab

- Computer science

- Mission: research, training and transfer

Université de Bordeaux

- University: IUT

Who?

Romain Giot

- Research assistant + associate professor

- Machine learning and information visualization

Romain Bourqui
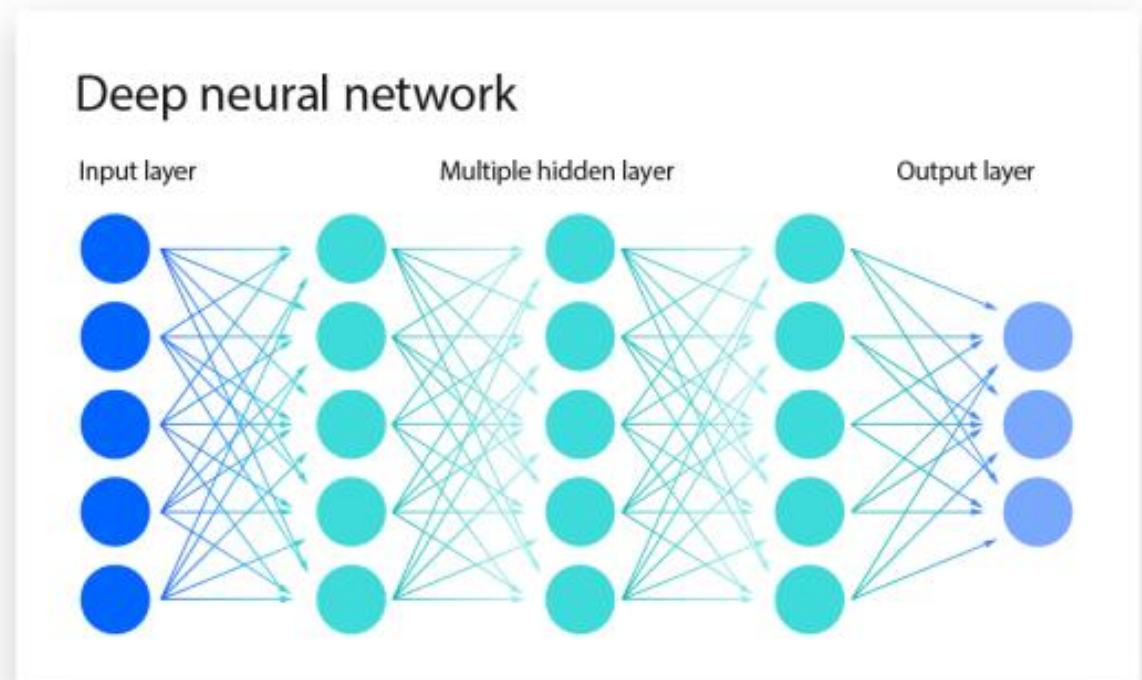
- Head of BKB team + associate professor
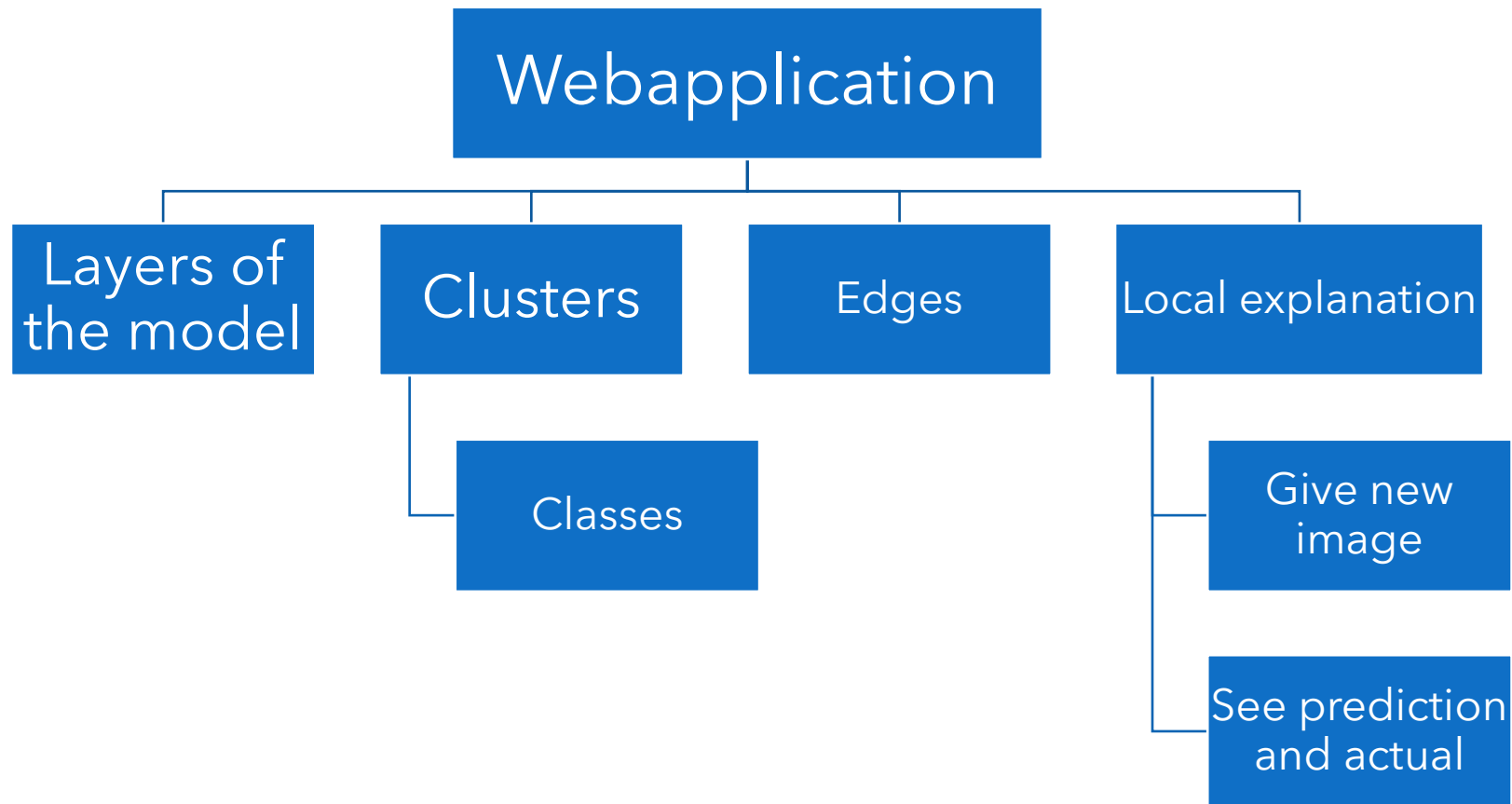
- Information visualization + deep learning

What? → Deep Learning Model Analysis and Visualization

- Layers of a deep learning model

- Activations modelled in clusters

- Connected by edges

Deep neural network

Input layer · Multiple hidden layer · Output layer

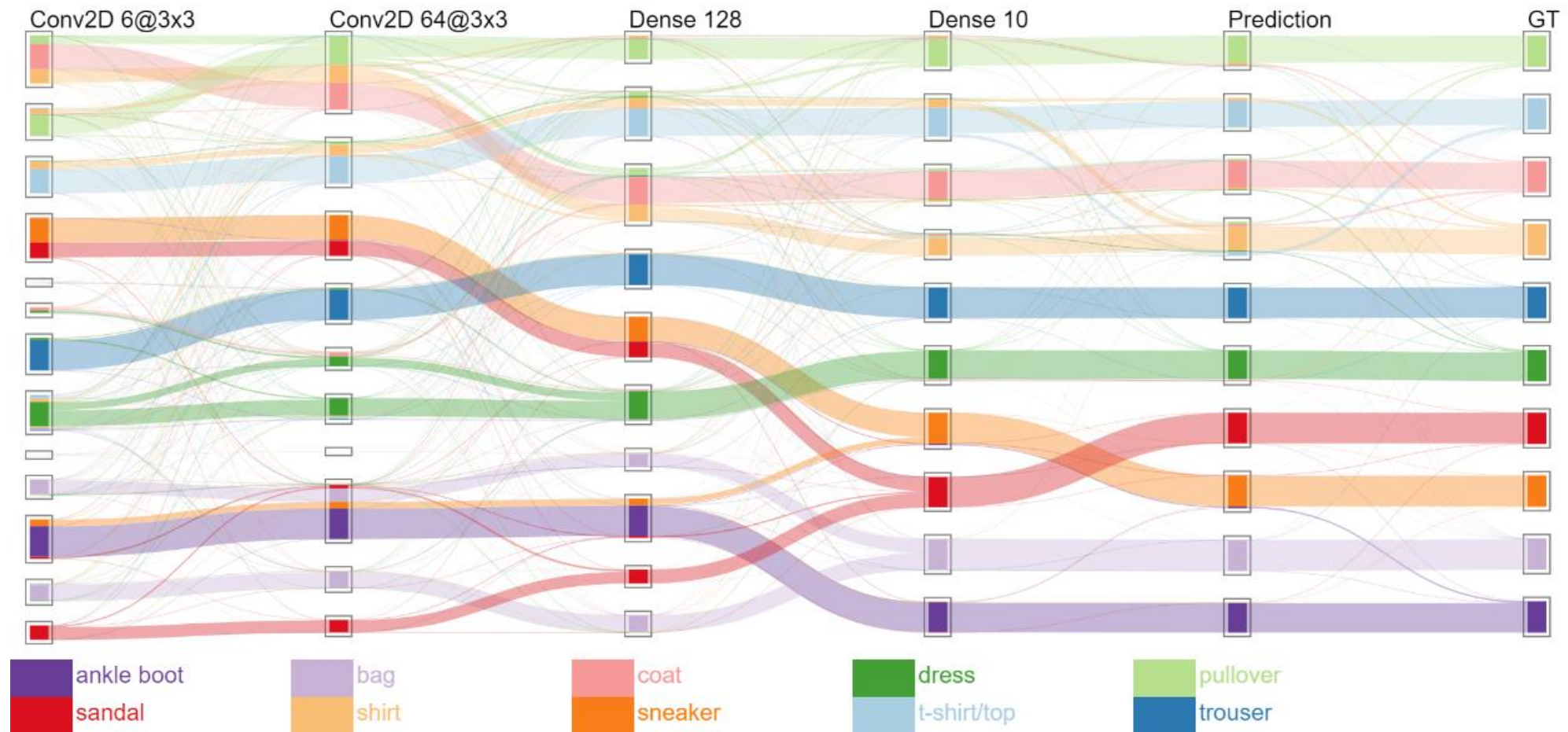# What? → Deep Learning Model Analysis and Visualization

Expected result

Webapplication

- See all the layers + data of the model

- See the edges and where every edge goes to

- See the activations at the different layers

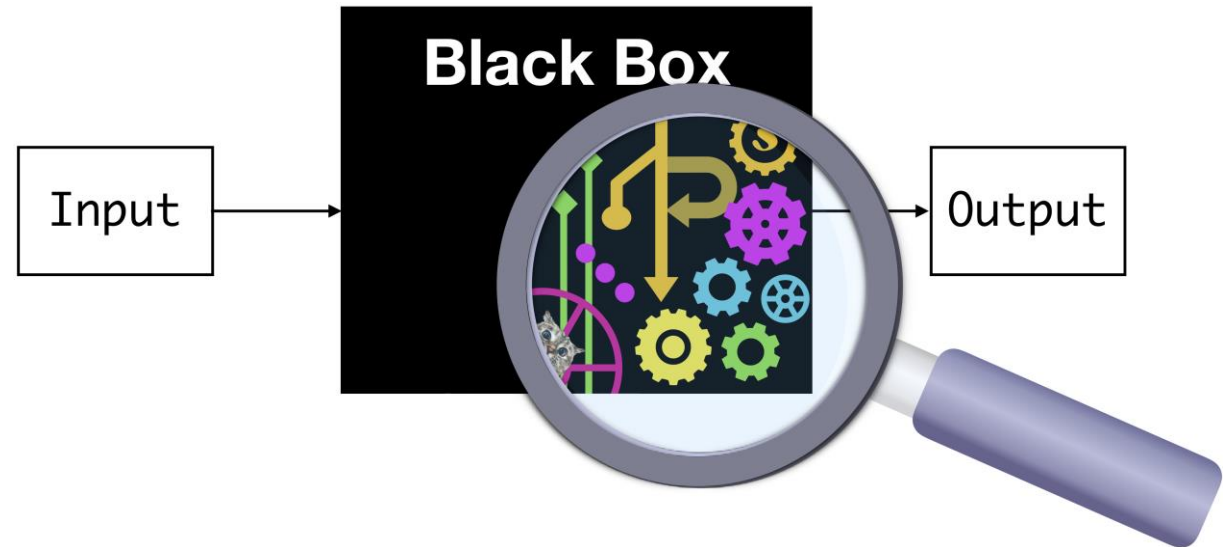- Clusters with the class names

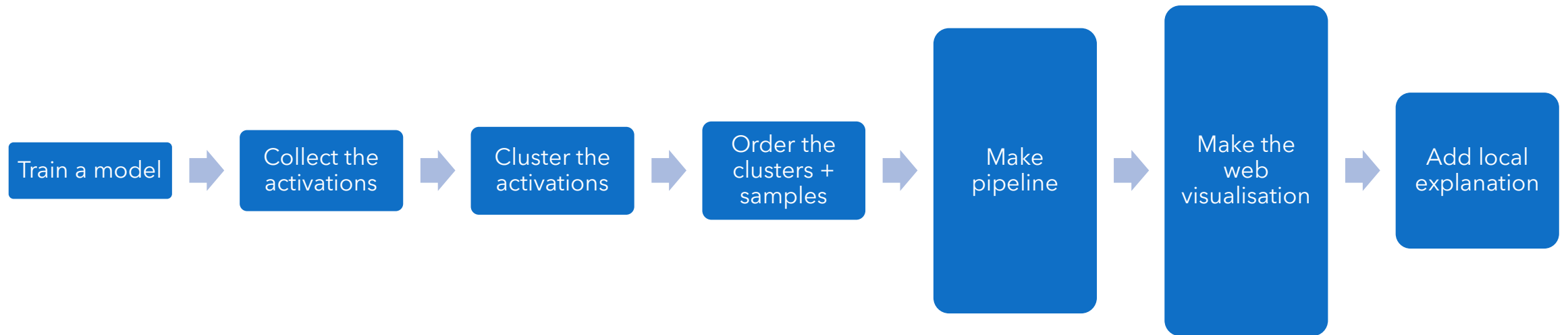- Local explanation with image

Expected result

Why?

- AI model = blackbox:
  - What happens in the layers?
  - Legal = critical domain
  - → not able to explain result
  - Acceptance of user
  - → why this result?

- Research:
  - Design new models
  - Improve existing models

Timeline

Train a model → Collect the activations → Cluster the activations → Order the clusters + samples → Make pipeline → Make the web visualisation → Add local explanation
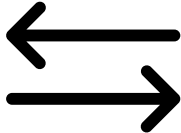
↕ = how much time

Risks

- Not finished in time ⇄ project hand-over

Communication

Weekly status report

- Every week
- What I did
- What problems
- Which solutions

Week 3: meeting

- Presentation updated project plan
- Supervisor

Before week 7

- Intermediate 'formative' evaluation
- Discussed by mentor and student

Communication

Week 8: meeting

- Presentation of the realizations
- Overview of the documents
- Work still to be done
- Supervisor

Documentation

- Project plan
- Evidence for realization
- Summary
- Reflection
- Project hand-over

Final evaluation

- Discussed by mentor and student

Thank you for your attention!

Iris Loret