

Numerade

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1.

What is
Numerade?





2.

Live demo



3.

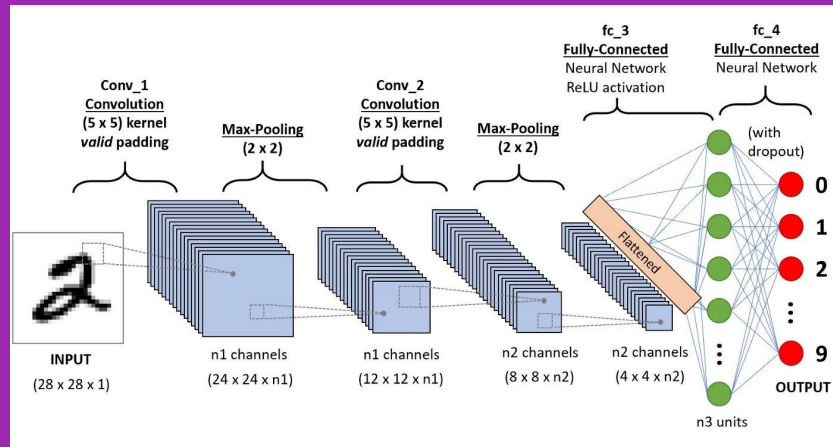
Tech stack /
Libraries

Libraries

- [Dream](#)
- [OCaml Torch](#)
- [Core](#)
- [Lwt](#)
- [Cohttp](#)
- [Rescript](#)

Neural Network

- Ocaml-torch
- Neural Network first
- Upgrade to conv Neural network
- Predict on one image
- Training every time
- Read file csv file



ocaml-torch

Public

OCaml bindings for PyTorch

OCaml ☆ 367 🔗 36

Predicting multiple digits

- **Big pipeline**
- Extract split indexes
 - |> Split images and remove edges
 - |> Add padding to each image
 - |> Predict each image



Pipeline



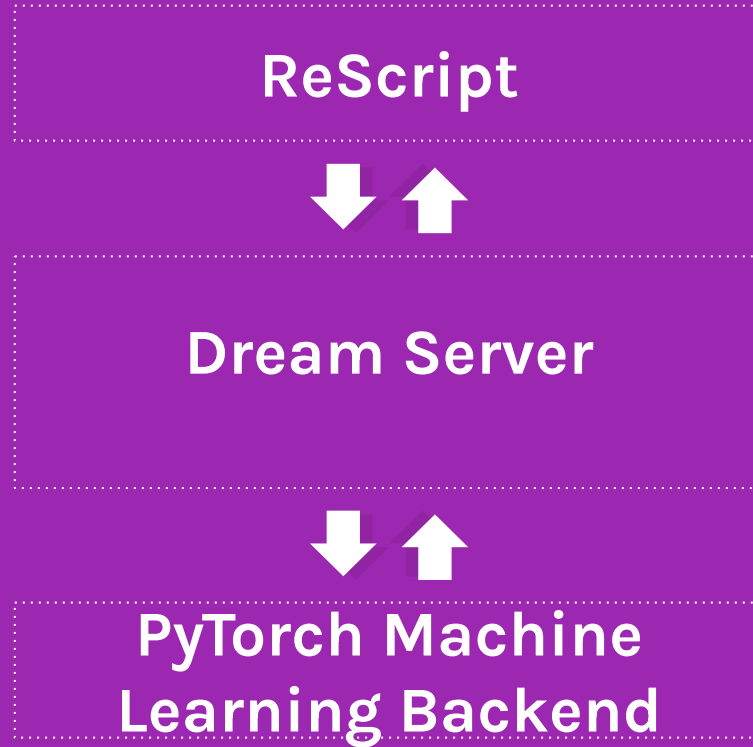
5424937279

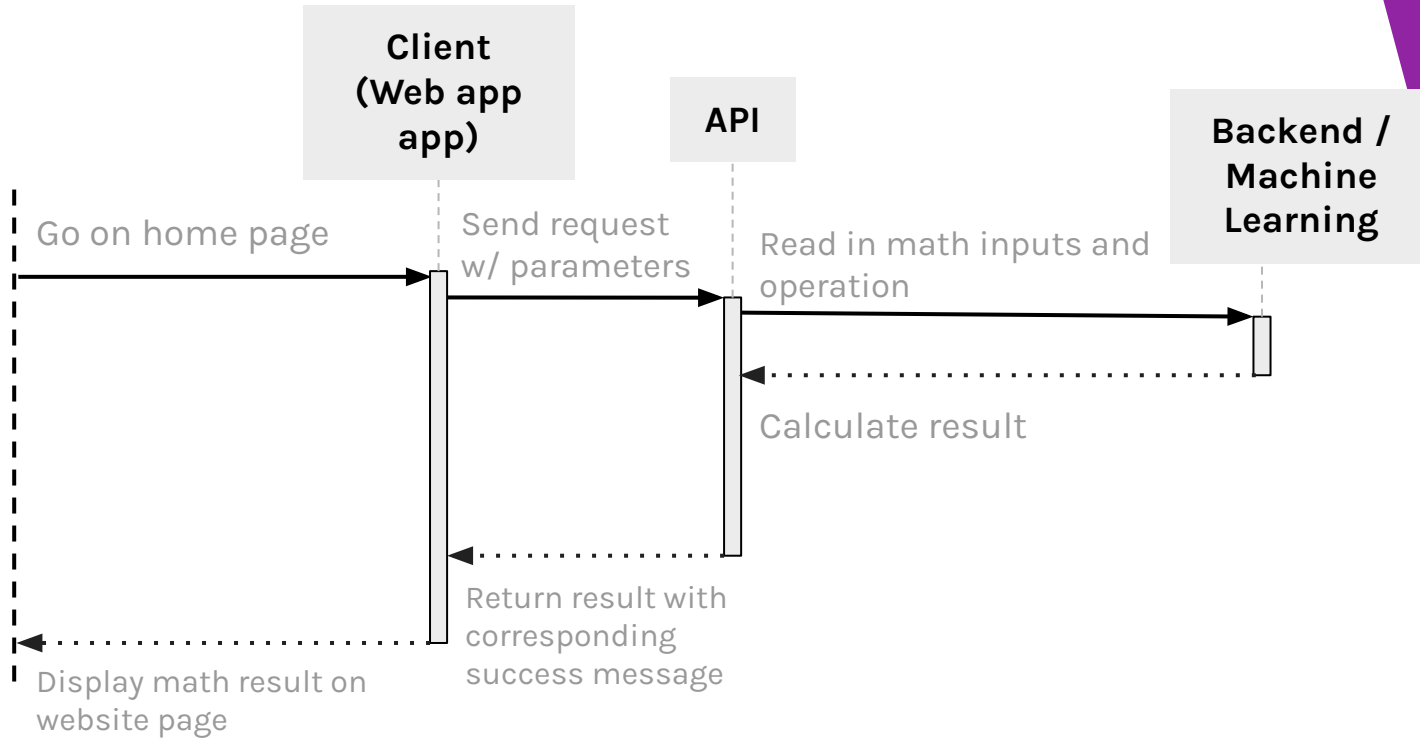


4.

High-level diagram

Client-server architecture





5.

Testing/Coverage

Coverage report

100.00%

	100% (46 / 46)	backend/src/extradigit.ml
	100% (18 / 18)	backend/src/operate.ml
	100% (37 / 37)	backend/src/predict_conv.ml
	100% (39 / 39)	backend/src/readfile.ml

6.

For future improvement

Handwritten Math Symbols

Over 10000 Handwritten Digits and Arithmetic Operators



**Thank
you!**