

BETA

About CodaBench



Participate

Find benchmarks that pique your interest! A benchmark allows you to test new algorithms against reference datasets OR (inverted benchmark) submit challenging data to reference algorithms.



Organize

Organize a benchmark on Codabench. Start with our [tutorial](#).



Contribute

Interested in joining the development team? Join us on [Github](#) or [contact us](#) directly.

18

TOTAL COMPETITIONS

9

PUBLIC COMPETITIONS

9

PRIVATE COMPETITIONS

5

USERS

54

COMPETITION PARTICIPANTS

162

SUBMISSIONS

About CodaBench

What is CodaBench?

Codabench is a platform allowing you to flexibly specify a benchmark. First you define tasks, e.g. datasets and metrics of success, then you specify the API for submissions of code (algorithms), add some documentation pages, and [CLICK] your benchmark is created, ready to accept submissions of new algorithms. Participant results get appended to an ever-growing leaderboard.

You may also create inverted benchmarks in which the role of datasets and algorithms are swapped. You specify reference algorithms and your participants submit datasets.

What is Codalab?

CodaLab Competitions is a powerful open source framework for running competitions that involve result or code submission. You can either participate in an existing competition or host a new competition.

Most competitions hosted on Codalab are machine learning (data science) competitions, but Codalab is NOT limited to this application domain. It can accommodate any problem for which a solution can be provided in the form of a zip archive containing a number of files to be evaluated quantitatively by a scoring program (provided by the organizers). The scoring program must return a numeric score, which is displayed on a leaderboard where the performances of participants are compared.

History of Codalab

Codalab was created in 2013 as a joint venture between Microsoft and Stanford University. Originally the vision was to create an ecosystem for conducting computational research in a more efficient, reproducible, and collaborative manner, combining worksheets and competitions. Worksheets capture complex research pipelines in a reproducible way and create "executable papers". Currently, we are developing the V2 of Codalab, which will be able to organize benchmarks.

Some competitions have been organized using worksheets, but the competition platform and the worksheet platform have both a large user base and can be used independently. In

News

Codalab statistics

[August 2020](#): Codalab exceeds 50,000 users, 1000 competitions (over 400 in the last year), and ~600 submissions per day!

L2RPN

[July 2020](#): We launched a new Learning to Run a Power Network competition, in collaboration with ChaLearn and RTE. We have a robustness and an adaptability track. This is an [NeurIPS 2020](#) competition.

Chagrade

[May 2020](#): We released a new application to help instructors use challenges in the classroom and grade them called Chagrade.

AutoDL

[April 2020](#): The [NeurIPS](#) AutoDL challenge ended. But the series of challenges on Automated Deep Learning, in collaboration with [ChaLearn](#), [Google Zurich](#), and [4Paradigm](#) continues with [AutoSeries](#) and [AutoGraph](#).

Data Science Africa 2019

[June 2019](#): We organized a data science bootcamp at [Data Science Africa 2019](#) in the form of a challenge to detect Malaria parasites in microscope images.

TrackML

[September 2018](#): The [LAL](#) and [CERN](#) are organizing a challenge to reconstruct particle trajectories in high energy physics detectors. After the success of the [first phase with result submission only](#), a second phase with code submission will be run on Codalab. TrackML is an officially selected challenge of the NIPS 2018 conference.

AutoML3

[August 2018](#): Codalab is proud to host the third challenge on Automatic Machine Learning: [Lifelong Machine Learning with drift](#). AutoML3 is an officially selected challenge of the NIPS 2018 conference.

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