GitHub Viz: An Interactive Visualization To Help You Gain Knowledge from Authoritative Developers

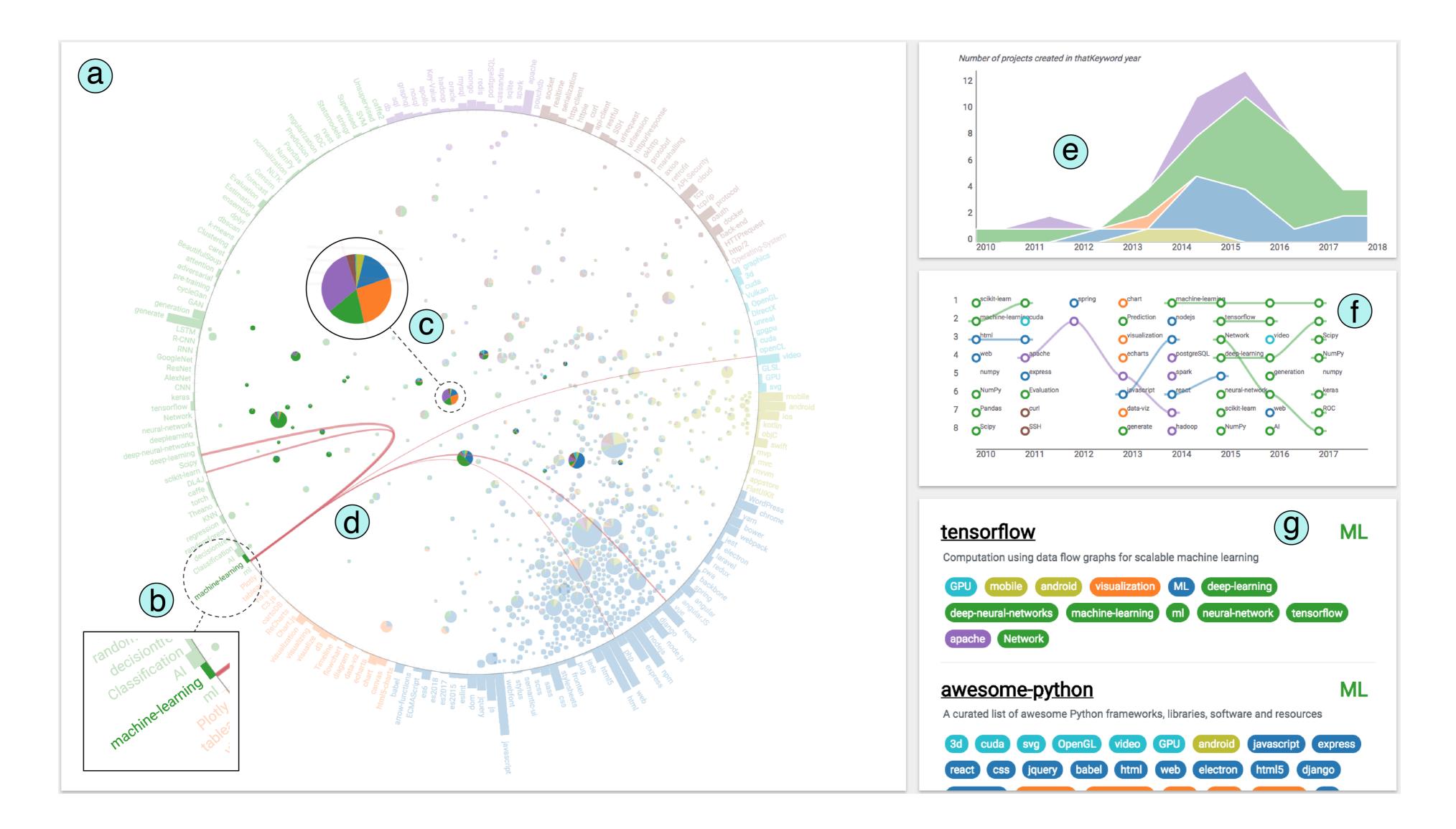


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Goal

Explore computer science and data science trends through open source project shared in GitHub.

Objectives

- 1) Find key developers related to specific fields and technologies.
- 2) Explore the core technology of fields.
- 3) Find other technologies that are relevant to a specific technology.
- 4) Explore trends in the areas of interest of key developers over time.
- 5) Explore changes in the technology, language, and libraries that are of interest to key developers.

Visualization Techniques

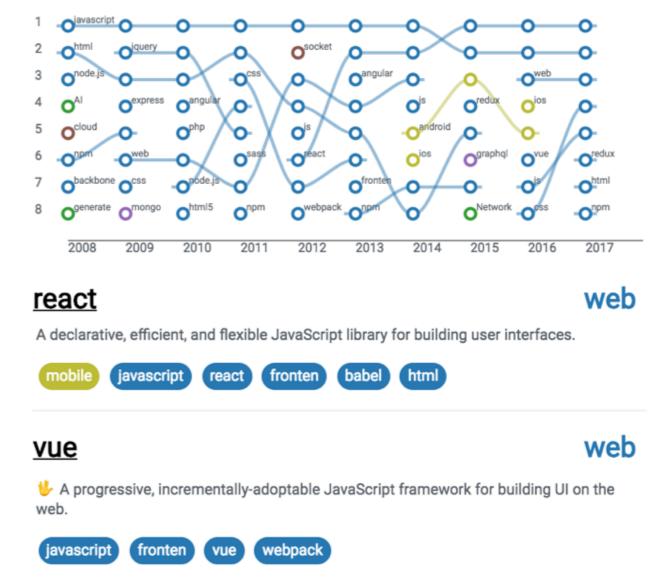
- (a) RadViz with keywords as DAs and users as instances.
- (b) DAs are indicated by different colors for each field and have a bar chart where bars are proportional to the number of related projects.
- (c) The color of the user nodes is expressed as a pie chart according to the proportion of the field.
- (d) Two keywords appearing in the same repository.
- (e) A graph showing the change in the number of generated repositories.
- (f) A graph showing the keyword ranking changes in the repositories.
- (g) List of repositories comprising the above two sub-views.

Observations

Machine Learning

In the field of machine learning, scikit-learan, Scipy and NumPy are steadily popualr libraries. Since 2014, deep learning has begun to attract attention, and at the same time tensorflow and keras libraries are noticing.

Web



javascript, jquery, html are steady core technologies in the WEB field. React, which appeared in 2012, gained popularity in a short period of time. The main repositories are react, vue, and so on.