

Lean GHTorrent: GitHub data on demand

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ABSTRACT

1. INTRODUCTION

During recent years, GITHUB (2008) has become the largest code host in the world, with more than 5M developers collaborating across 10M repositories. Due to its support for distributed version control (Git) and pull-based development [2], as well as its modern Web UI and focus on social coding [3], GITHUB has surpassed in size and popularity even much older forges such as Sourceforge (1999). As a result, numerous projects (especially open source) are migrating their code base to GITHUB (for instance, the Google query *migrate to github* returns more than 4M results), which now hosts popular projects such as Ruby on Rails, Homebrew, Bootstrap, Django or JQuery.

Researchers have quickly jumped on board and have started exploring the richness of GITHUB data. So far, studies focused on building language models of source code [1], understanding the effects of branching and pull-based software development [5, 9], uncovering associations between crowdsourced knowledge and software development [16], visualizing collaboration and influence [7], exploring the social network of developers [8, 13, 15], or investigating how the social nature of GITHUB impacts collaboration [3, 10] and could be used to improve development practices [11, 12].

To facilitate studies of GITHUB, we have created GHTorrent [4, 6], a scalable, queriable, offline mirror of the data offered through the GITHUB REST API. GHTorrent data has already been used in empirical studies (e.g., [5, 14, 16]), and a subset of it has been selected as the topic of the Mining Challenge at the 2014 Working Conference on Mining Software Repositories.

2. REFERENCES

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