Git and open source workflows

Speakers:
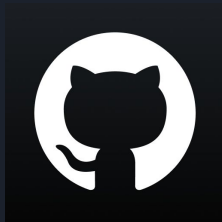Arsh Sharma (GSoC'21 @JuliaLanguage)
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What is Git and GitHub?

Git is software for tracking changes in any set of files, usually used for coordinating work among programmers collaboratively developing source code during software development. **Its goals include speed, data integrity, and support for distributed, non-linear workflows.**

GitHub is a code hosting platform for version control and collaboration. It lets you and others work together on projects from anywhere.

What is version control and how it is useful?

- **Version control**, also known as source control, is the **practice of tracking and managing changes to software code**.
- Version control systems are software tools that **help software teams manage changes to source code over time**.
- Version control plays a particularly important role when managing and keeping track of changes. It enables all members of a **team to collaborate from the most recently updated version**.

Various Version Control Systems

- **Centralized Version Control System:** A centralized version control system offers software development teams a way to collaborate using a central server. **eg: CVS, Perforce, and SVN.**

- **Distributed Version Control System:** Distributed Version Control is a version control where each client can have same copy of source code as server has and both server and client maintain history of source code. **eg: git and Mercurial**

Thank you