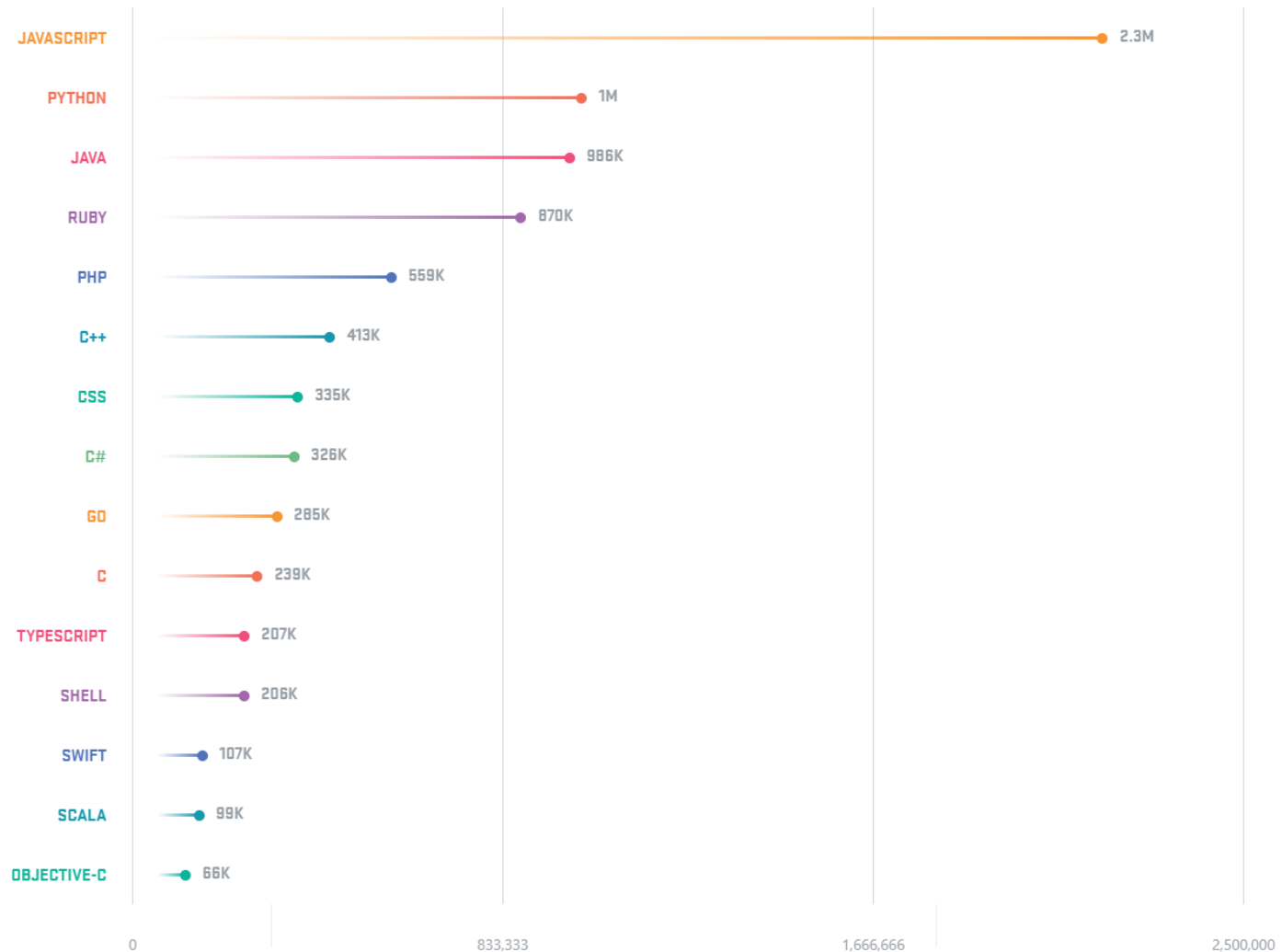# The Fundamental Practice of Software Engineering Innovation

Best Practice of Front-end

2017-10-20

上海交通大学
SHANGHAI JIAO TONG UNIVERSITY

The 15 most popular languages on GitHub

Language	Count
JAVASCRIPT	2.3M
PYTHON	1M
JAVA	986K
RUBY	870K
PHP	559K
C++	413K
CSS	335K
C#	326K
GO	285K
C	239K
TYPESCRIPT	207K
SHELL	206K
SWIFT	107K
SCALA	99K
OBJECTIVE-C	66K

0   833,333   1,666,666   2,500,000

Ten most-forked projects

Project	Forks
TENSORFLOW/TENSORFLOW	24K
TWBS/BOOTSTRAP	15K
GITHUB/GITIGNORE	10.8K
BARRYCLARK/JEKYLL-NOW	10.7K
TENSORFLOW/MODELS	8.3K
VUEJS/VUE	8.1K
FACEBOOK/REACT	8K
JLORD/PATCHWORK	7.4K
SPRING-PROJECTS/SPRING-BOOT	7.4K
TORVALDS/LINUX	6.1K

Projects with the most contributors

Project	Contributors
MICROSOFT/VSCODE	15K
FACEBOOK/REACT-NATIVE	8.8K
NPM/NPM	7.6K
ANGULAR/ANGULAR-CLI	7.4K
TENSORFLOW/TENSORFLOW	7.3K
FORTAWESOME/FONT-AWESOME	6.8K
ANGULAR/ANGULAR	6K
DOCKER/DOCKER	6K
JLORD/PATCHWORK	5.9K
ANSIBLE/ANSIBLE	5.9K

Projects with the most reviews

DT	DEFINITELYTYPED/DEFINITELYTYPED	800
	KUBERNETES/KUBERNETES	680
	HOMEBREW/HOMEBREW-CORE	580
	ANSIBLE/ANSIBLE	550
	NODEJS/NODE	480
	NIXOS/NIXPKGS	480
	APACHE/SPARK	450
	RUST-LANG/RUST	390
	SYMFONY/SYMFONY	340
	TENSORFLOW/TENSORFLOW	340

Ten most-discussed repositories

	KUBERNETES/KUBERNETES	388.1K
	OPENSHIFT/ORIGIN	91.1K
	CMS-SW/CMSSW	80.1K
	MICROSOFT/VSCODE	78.7K
	RUST-LANG/RUST	75.6K
	DOTNET/COREFX	75.2K
	TGSTATION/TGSTATION	74.8K
	NODEJS/NODE	66.3K
	SERVO/SERVO	54.9K
	ANSIBLE/ANSIBLE	53.9K

Best Practice

- "A **best practice** is a method or technique that has been generally accepted as **superior** to **any alternatives** because it produces results that are superior to those achieved by other means or because it has become a **standard way of doing things**."

Project I

Build	IDE	Application			Test
Dep		Framework			
Code		HTML	CSS	JavaScript	
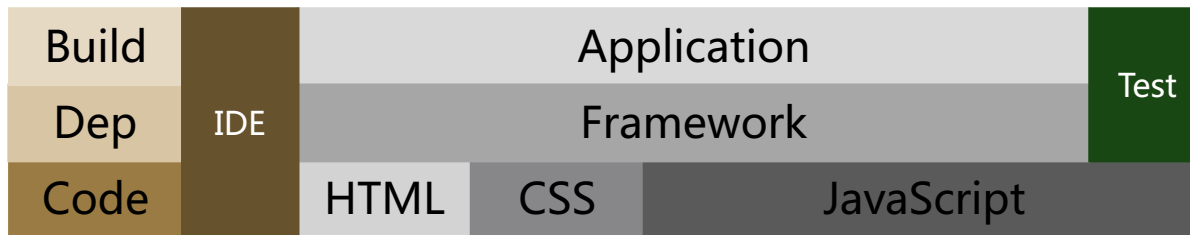
Code Management

- SVN VS. Git
  - Architecture

- Github
  - BitBucket

- Git
  - workflow

Build Management

- Gulp VS. Grant

Package Management

- NPM

- Bower

Project Management

- Communication

- Documentation

- Schedule

- Monitor

Homework II

- Git, Git workflow & Github
  - Create a repository
    - Clone, commit, push, pull
    - Tag
    - gitignore
    - Pull request, resolve conflict, rebase, Issue will be practiced in Project II
  - Prepare a markdown
    - Git workflow
      - What, Why, How
    - 2017-10-30

Project I

- A Github repository of an application's front-end
  - Cover all the domains except for IDE
  - You can follow a mooc to build the application
    - Courses on Coursera.org
    - Use Github to record the whole process of application development
- Submission
  - Deadline
    - 2017-11-20
  - sjtuseproj@sjtu.edu.cn
    - The url of your Repository