



记笔记

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前言

作为一个技术宅，很喜欢学习一些自己感兴趣的技术，在学习的过程中，深感记笔记非常的重要。

笔记

笔记记得好，即使过上几年，再次翻看，还能记忆犹新。

笔记类别

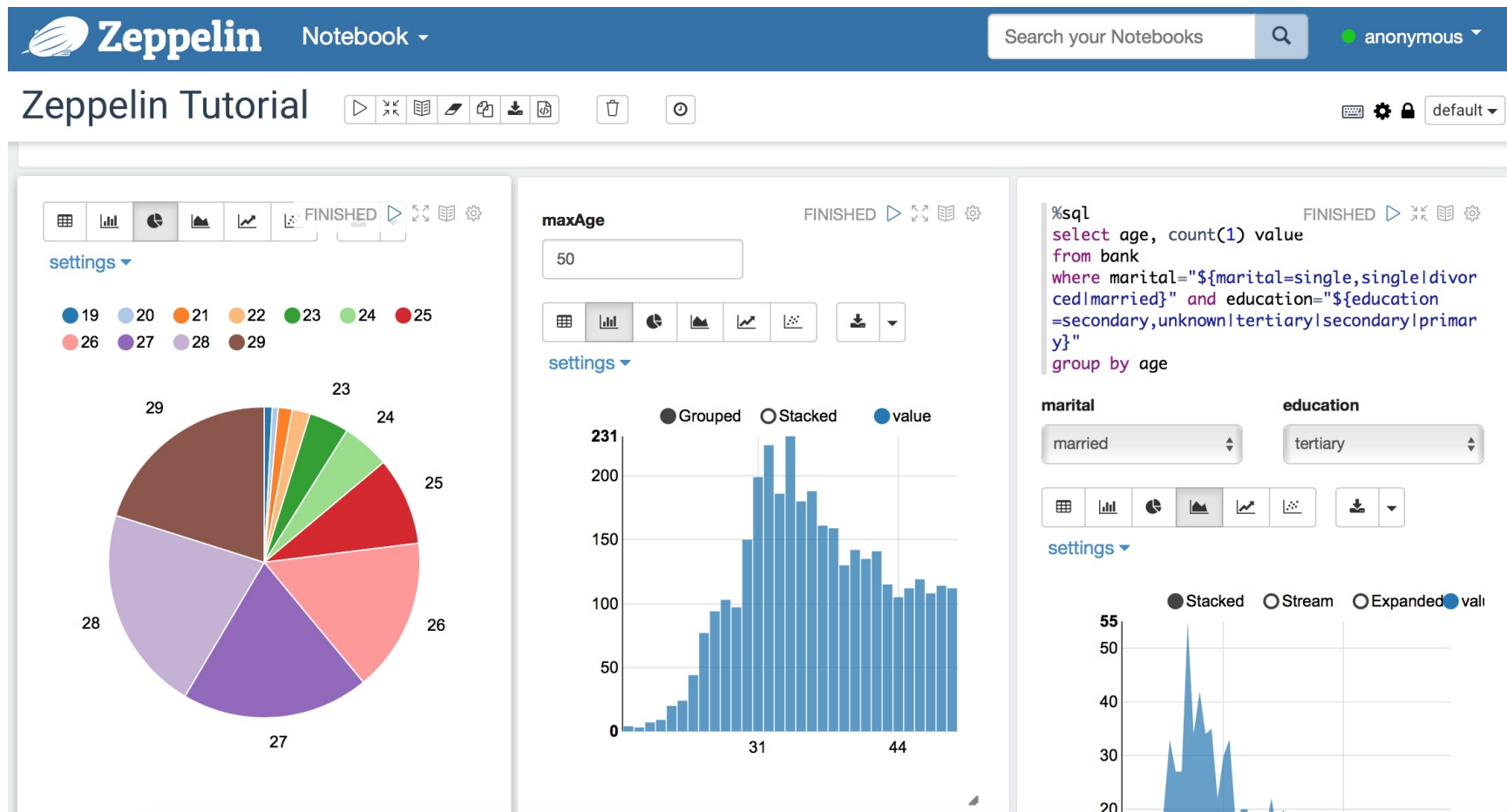
从程序员的眼中，笔记可以分为：

- 信息：任何你想记录的
- 代码：程序代码
- 文档：个人，项目或者团队的活动中的内容
- 交互文档：混合了代码，图表和文档
- 文章：相对正式，常用wiki，blog等发布

一篇笔记，可以属于多个类别

交互文档：jupyter notebook, zeppelin

学习Spark的时，接触了zeppelin，它采用scala和sql等语言编写代码，用markdown来编写文档。



jupyter notebook example

什么是好笔记

- 好理解：好的笔记是容易理解的
- 易于复现：好的笔记，也应该是容易被重现的
- 持续更新

廖雪峰的官方网站

编程

读书

Java教程

Python教程

JavaScript教程

SQL教程

目录

Python教程

Python简介

安装Python

第一个Python程序

Python基础

函数

高级特性

函数式编程

模块

面向对象编程

面向对象高级编程

错误 调试和测试

Python教程

阅读: 15912817

这是小白的Python新手教程，具有如下特点：

中文，免费，零起点，完整示例，

Python是一种计算机程序设计语言。你可能已经听说过很多种流行的编程语言，比如：

那Python是一种什么语言？

首先，我们普及一下编程语言的基础知识。用任何编程语言来开发程序，都是为了让让都得"翻译"成CPU可以执行的机器指令。而不同的编程语言，干同一个活，编写的代码

比如，完成同一个任务，C语言要写1000行代码，Java只需要写100行，而Python可能

所以Python是一种相当高级的语言。

笔记的安全性

笔记发布的安全性非常重要。不同的笔记也有不同的发布范围。

- Internet:

- 公开。没有安全性限制
- 私有。信息是私有的，但可以授权任意的人员来访问

- 公司：仅在公司内部网络才可以访问。
 - 公司/部门：信息在公司或部门内部是公开的
 - 项目：信息在项目组内部是公开的
 - 私有：信息是私有的，可以授权公司同事访问

工具

任何工具的流行，离不开需求，也离不开合适的环境。

历史

个人而言，使用的工具经历了以下的过程。

- 原始社会：文本文件，word，excel文件
 - 工业时代：evernote，onenote，网易云笔记
 - 信息时代：zeppelin，jupyter notebook + 思维导图
 - 互联时代：github(pages, wiki) + typora(markdown) + pandoc
- ...

以上这些工具，我们都会混合使用，没有一种工具可以解决所有的问题。

原始社会：文本文件，word，excel文件

文件分散在计算机的各处，时间长了，放在哪里都忘了,查找起来很不方便。



工业时代：evernote，onenote，网易云笔记

The screenshot shows a OneNote application window titled "Math Class Notebook". The interface includes a ribbon with tabs for "Home", "Insert", "Draw", and "View". The "Home" tab is active, showing a font face of "Calibri Light", size "20", and bold formatting. The notebook page is titled "Pythagorean Theorem" and dated "Tuesday, September 15, 2015 2:20PM".

On the left, a sidebar shows the notebook's structure with a tree view containing "Homework", "Class Notes", "Handouts", and "Quizzes". The "Class Notes" section is expanded, showing a list of topics: "Geometry", "Types of Triangles", "Pythagorean Theorem", "Algebra", "Linear Equations", and "Forms of Linear Equations". The "Pythagorean Theorem" topic is selected.

The main content area displays a hand-drawn diagram of a right-angled triangle with sides labeled a , b , and c . The right angle is marked with a square symbol and labeled "90°". To the right of the triangle, the equation $a^2 + b^2 = c^2$ is written in a handwritten style.

Below the diagram, the text "Statement: The square of the hypotenuse (the side opposite the right angle) is equal to the sum of the squares of the other two sides." is followed by two bullet points:

- Only applies to the right angled triangles.
- Can be used to find the length of the third side of a right angled triangle given the other two sides.

Below the text, the phrase "Example from the class:" is followed by a diagram showing a right-angled triangle on a grid. The triangle's legs are aligned with the grid lines, and its hypotenuse is drawn across the grid. The grid is colored green, and the triangle's sides are colored blue.

信息时代：zeppelin, jupyter notebook + 思维导图

The image displays two Jupyter Notebook interfaces. The background window shows the 'Welcome to Jupyter' page with a warning message: 'WARNING: Don't rely on this server for production use. Your server is hosted there...'. The foreground window is titled 'Lorenz Differential Equations (autosaved)' and contains the following content:

Exploring the Lorenz System

In this Notebook we explore the [Lorenz system](#) of differential equations:

$$\begin{aligned}\dot{x} &= \sigma(y - x) \\ \dot{y} &= \rho x - y - xz \\ \dot{z} &= -\beta z + xy\end{aligned}$$

This is one of the classic systems in non-linear differential equations. It exhibits a range of complex behaviors as the parameters (σ, β, ρ) are varied, including what are known as *chaotic solutions*. The system was originally developed as a simplified mathematical model for atmospheric convection in 1963.

```
In [7]: interact(Lorenz, N=fixed(10), angle=(0.,360.),
                 sigma=(0.0,50.0), beta=(0.,5), rho=(0.0,50.0))
```

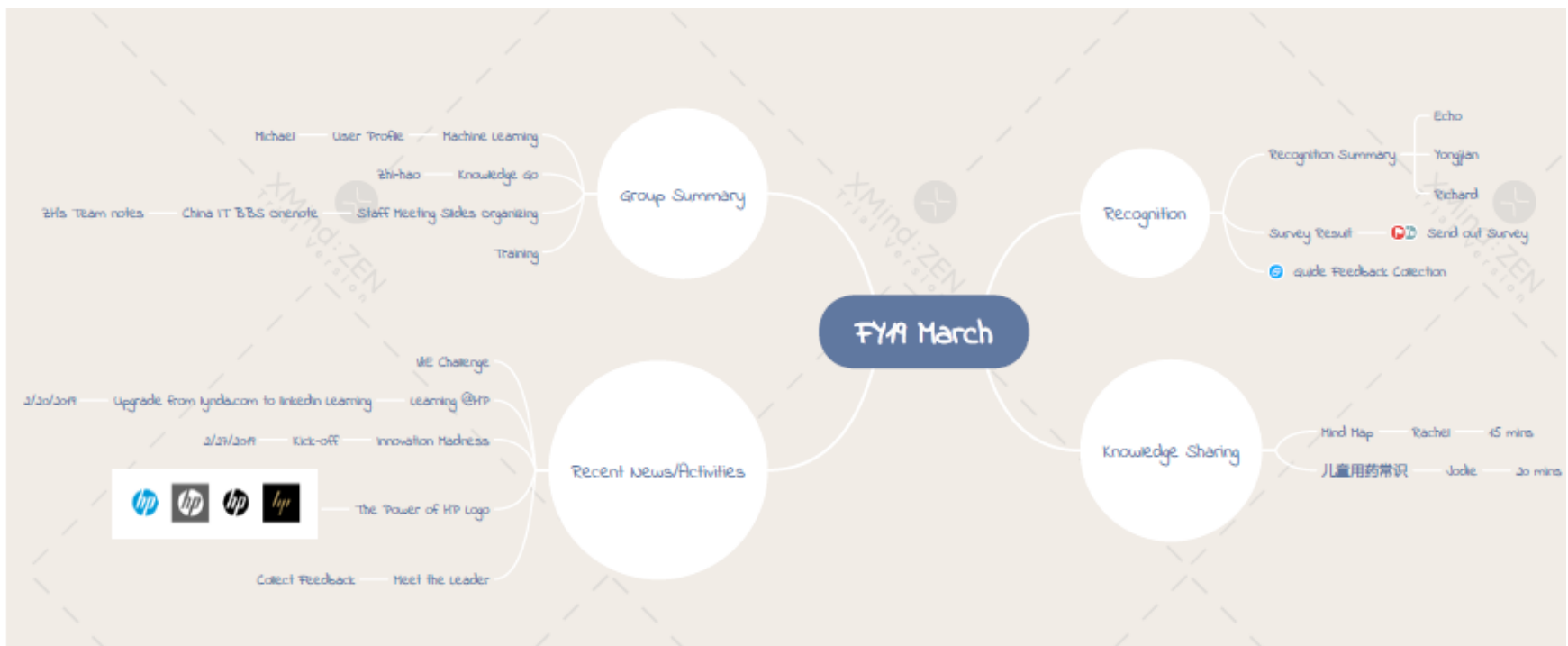
Interactive sliders for parameters:

- angle: 308.2
- max_time: 12
- σ : 10
- β : 2.6
- ρ : 28

Below the sliders is a plot of the Lorenz attractor, showing the characteristic butterfly shape with multiple colored trajectories.

思维导图

思维导图，则另辟蹊径，是表达发散性思维的有效图形思维工具。



互联时代: **github(pages, wiki) + typora(markdown) + pandoc ...**

面临的问题:

- 工具的强大, 造成笔记太多, 如何使笔记更有价值?
- 学习时记笔记, 开发时写文档, 分享时写ppt, 如何用统一的方式来管理?

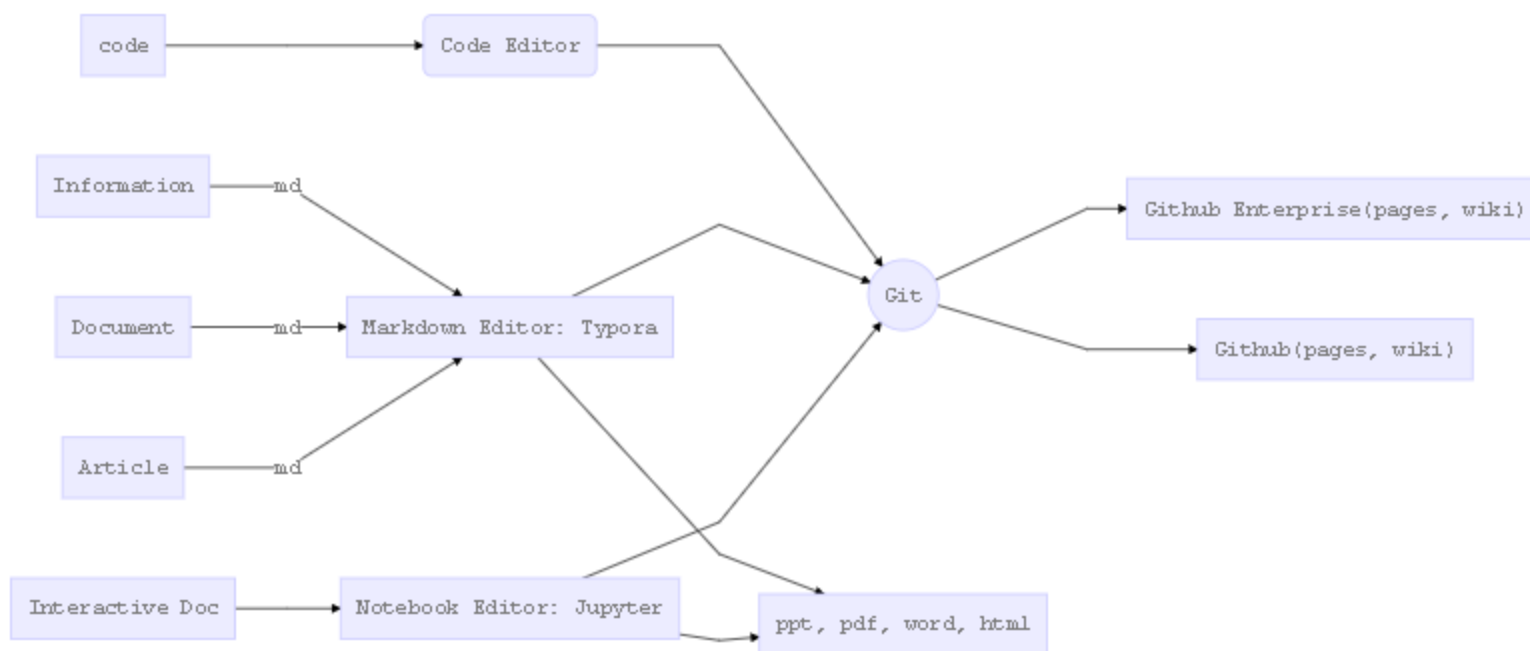
分享

知识的根本目的和价值是分享。



当需要分享知识的时候，往往会花上心思，这使得知识更易于理解，更加有价值。

流程



```
graph LR;
    CE --> Git((Git));
    Information-->|md|MDE[Markdown Editor: Typora];
    Document-->|md|MDE;
    Article-->|md|MDE;
    ID[Interactive Doc]-->NE[Notebook Editor: Jupyter];
    code --> CE(Code Editor);
    MDE-->Others[ppt, pdf, word, html];
    NE-->Others;
    MDE--> Git;
    NE--> Git;
    Git-->GE["Github Enterprise(pages, wiki)"];
    Git-->GitHub["Github(pages, wiki)"];
```

GitHub Pages

GitHub Pages is a static site hosting service designed to host your personal, organization, or project pages directly from a GitHub repository...



Projects using GitHub Pages

Open source organizations using GitHub Pages

GitHub Wiki

host documentation for your repository in a wiki.



confluence

wechat user profile

GitHub Pages, Wiki的最大优势：流量优势！

Typora

will give you a seamless experience as both a reader and a writer.

- markdown
- image enhanced

example eigenvector-singular.md

Markdown

is a lightweight markup language with plain text formatting syntax. Its design allows it to be converted to many output formats

Header 1

This is an R Markdown document. Markdown is a simple formatting syntax for authoring webpages.

Use an asterisk mark to provide emphasis, such as *italics* or **bold**.

Create lists with a dash:

- Item 1
- Item 2
- Item 3

```

Use back ticks to create a block of code

```

Embed LaTeX or MathML equations,
$$\frac{1}{n} \sum_{i=1}^n x_i$$

Or even footnotes, citations, and a bibliography. ^[1]

^[1]: Markdown is great.

Header 1

This is an R Markdown document. Markdown is a simple formatting syntax for authoring web pages.

Use an asterisk mark to provide emphasis, such as *italics* or **bold**.

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Use back ticks to create a block of code

Embed LaTeX or MathML equations, $\frac{1}{n} \sum_{i=1}^n x_i$

Or even footnotes, citations, and a bibliography. ¹

1. Markdown is great. ↩

Markdown vs. Word

- 内容与形式分离 vs 所见即所得（内容与形式融合）
 - 专注内容书写：Markdown 胜
 - 调整排版：Markdown 胜
 - 文档发布和阅读：Markdown 胜
- 源码输入 vs 所见即所得
 - 严谨性：Markdown 胜
 - 功能：Word 胜
 - 图片支持：Word 略胜
 - 表格支持：Word 胜
 - 显示和上手难度：Word 胜
 - 书写流畅性：Markdown 胜

Pandoc

Pandoc是一个标记语言转换工具，可实现不同标记语言间的格式转换，堪称该领域中的“瑞士军刀”。

```
pandoc -t revealjs -s take_notes_ppt.md \  
-o take_notes_ppt.html \  
-V revealjs-url=https://revealjs.com \  
-V theme=moon
```

工具的要求

并不是对单一工具的，而是对于所用的工具集来说的。

- 简单易用
- 多种格式： 信息，文档，表格，代码，图表都能支持。
- 编辑方便。不方便例子有jupyter notebook添加图片麻烦
- 快速检索。不好的例子有网易云笔记的搜索功能
- 易于分享。支持分享到项目，部门，公司或互联网。

Microsoft Teams + OneNote ...

The screenshot shows the Microsoft Teams interface with a OneNote notebook titled "China IT BBS Notebook" open. The left sidebar contains navigation icons for Activity, Chat, Teams, Meetings, Calls, Files, and a "Get app" button. The main content area displays a list of staff meetings under the "ZH's Staff Meeting" section. The selected meeting, "Staff Meeting - 05/13/2019", is shown in detail on the right.

China IT BBS Notebook

OneNote Online | China IT BBS > China IT BBS Notebook

China IT BBS Notebook Open in OneNote ? Help Immersive Reader Terms of Use

Staff Meeting - 05/13/2019
Thursday, May 9, 2019 6:45 AM

Attendee:

- Qin Lei - Annual Leave
- Helen - Late because of the project.

Note:

- News – Activity (10 minutes)
 - Complete the annual Integrity at HP training by May 10, 2019
 - VIA is coming
- Group Summary (15 minutes)
 - Training
 - KM
 - Cloud
 - Story & Project Sharing Plan

Name	Topic	Schedule
Cici	PMP	June or July
Echo	KM	June or July
Jez	Childrearing	Nov or Dec
Helen	Project	August
Helen	Story	September
Michael	Docker	June or July
YongJian	AWS Cost Report	July or Aug

- Story & Project Sharing

China IT BBS OneNote

teams + onenote ... vs. github + typora ...

requirement	teams	github	description
简单易用	5	3	后者复杂的多
多种格式	4	4	前者对代码的支持不够好
编辑方便	5	4	前者功能强大，但后者善于精细化的控制
快速检索	4	5	由于纯文本和开放性，后者可以实现超强的搜索功能
易于分享	4	5	前者适合内部分享，后者无限制

teams + onenote ... vs. github + typora ...

- 总体上两套工具集合都很强大。
 - teams + onenote 简单易用，更加成熟
 - github + typora 开放自由，扩展性更好
- 对于程序员来说，github + typora 更有诱惑性。

总结

无论使用任何工具，无论如何记笔记，只要让更多知识得到更好的分享，就能获得更大价值。

参考

- 学习编程用什么做笔记比较好？
- 反思Markdown: Markdown的长与短
- 关于 Markdown 的一些奇技淫巧
- Typora - 不要太棒的Markdown编辑器
- Cmd Markdown 编辑阅读器：在线Markdown编辑器。
- Producing slide shows with pandoc
- mermaid live editor
- GitHub Pages
- Creating and Hosting a Personal Site on GitHub: 非常好的入门 guide

Thank You 😊

Thank you 😊

Thank you 😊

Thank you 😊

Thank you 😊

Thank you 😊