

数据可视化

Week 11

Scale

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D3相关学习资料

- 书籍:

《数据可视化实战 实用D3设计交互式图表 第2版》

(英文版已上传至平台, 讲的比较细致)

- 教学视频:

1. Shirley Wu: Introduction to D3.js (Observablehq平台)

https://www.bilibili.com/video/BV1ES4y177gR?share_source=copy_web

(很好的通过实例进行学习)

2. 清华计算机系春季的《数据可视化》

https://www.bilibili.com/video/BV1HK411L72d?share_source=copy_web

(节奏较快)

• 数据类型:

- quantitative
ratings out of 10, number of votes
- temporal
release dates
- spatial
cities, countries



continuous

• 视觉通道:

- position
x, y
- size
width, height, radius, scale
- color
sequential, diverging



continuous

- nominal
genres
- ordinal
Parental Guidance ratings



discrete

- shape
dots, squares, letters
- color
categorical



discrete

d3.scale

continuous → continuous

- **scaleLinear()**
- **scaleLog()**
- **scaleSqrt()**
- **scaleTime()**

continuous → discrete

- **scaleQuantize()**

discrete → discrete

- **scaleOrdinal()**

discrete → continuous

- **scaleBand()**

d3.scale

```
const scale = d3.scaleLinear()  
  .domain([min, max]) // raw data  
  .range([min, max]) // visual channel
```

```
scale(someValue) // returns translated value
```

To get min & max values from data:

```
d3.min(data, d => d[someAttr])  
d3.max(data, d => d[someAttr])  
d3.extent(data, d => d[someAttr]) // returns [min, max]
```