

The



Chiasm

Data Visualization Platform

Curran Kelleher

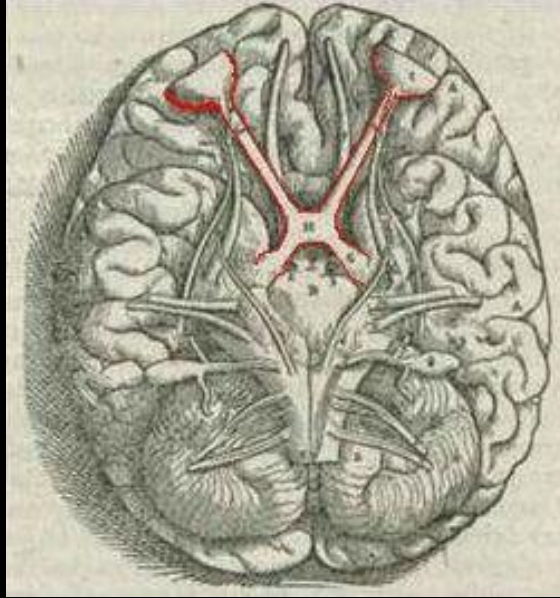
August 2015

Houston Data Vis Meetup



Curran Kelleher

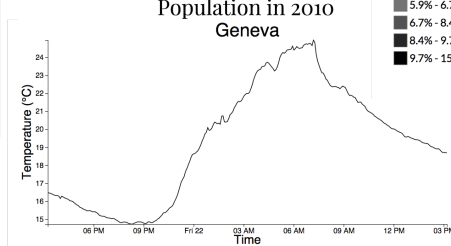
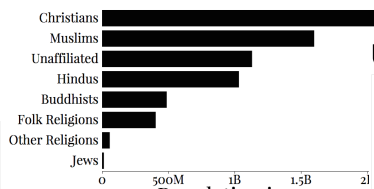
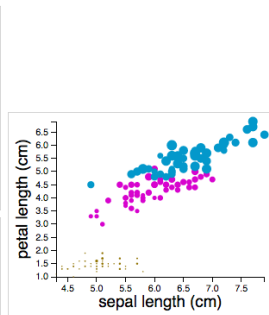
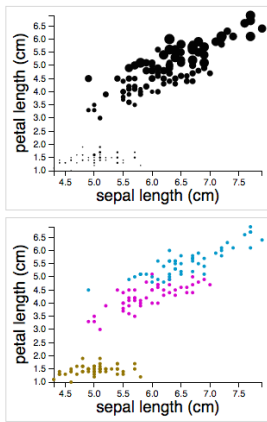
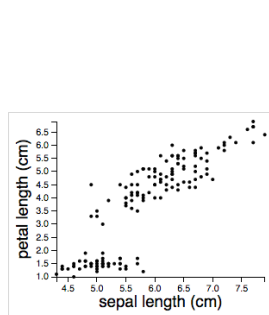
- Ph. D. from University of Massachusetts
- Working on Chiasm at Alpine Data Labs



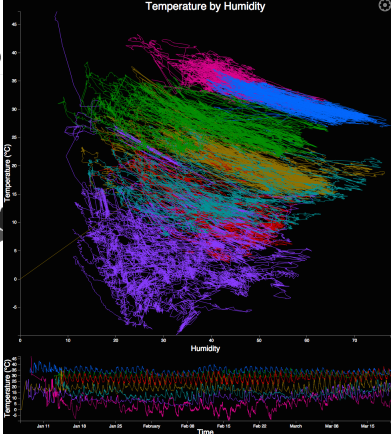
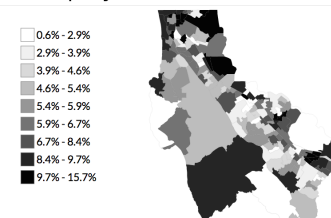
Data Visualizations



Data Systems



Unemployment in San Mateo

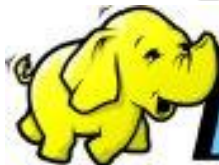


Chiasm

SQL



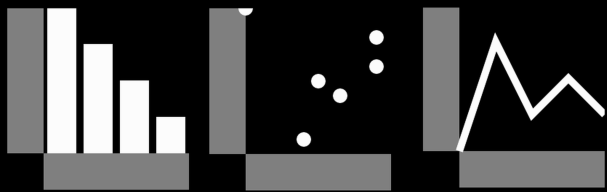
Spark



hadoop

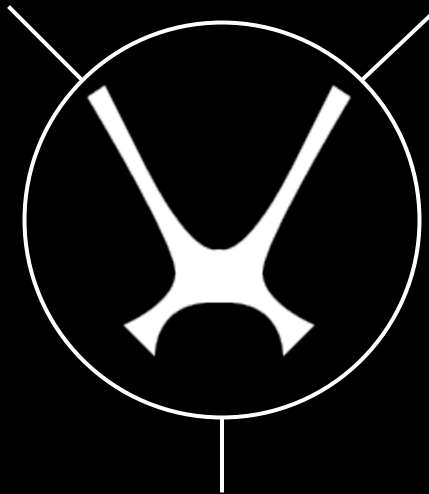
Scala

akka



Visualization
Techniques

Data Sets

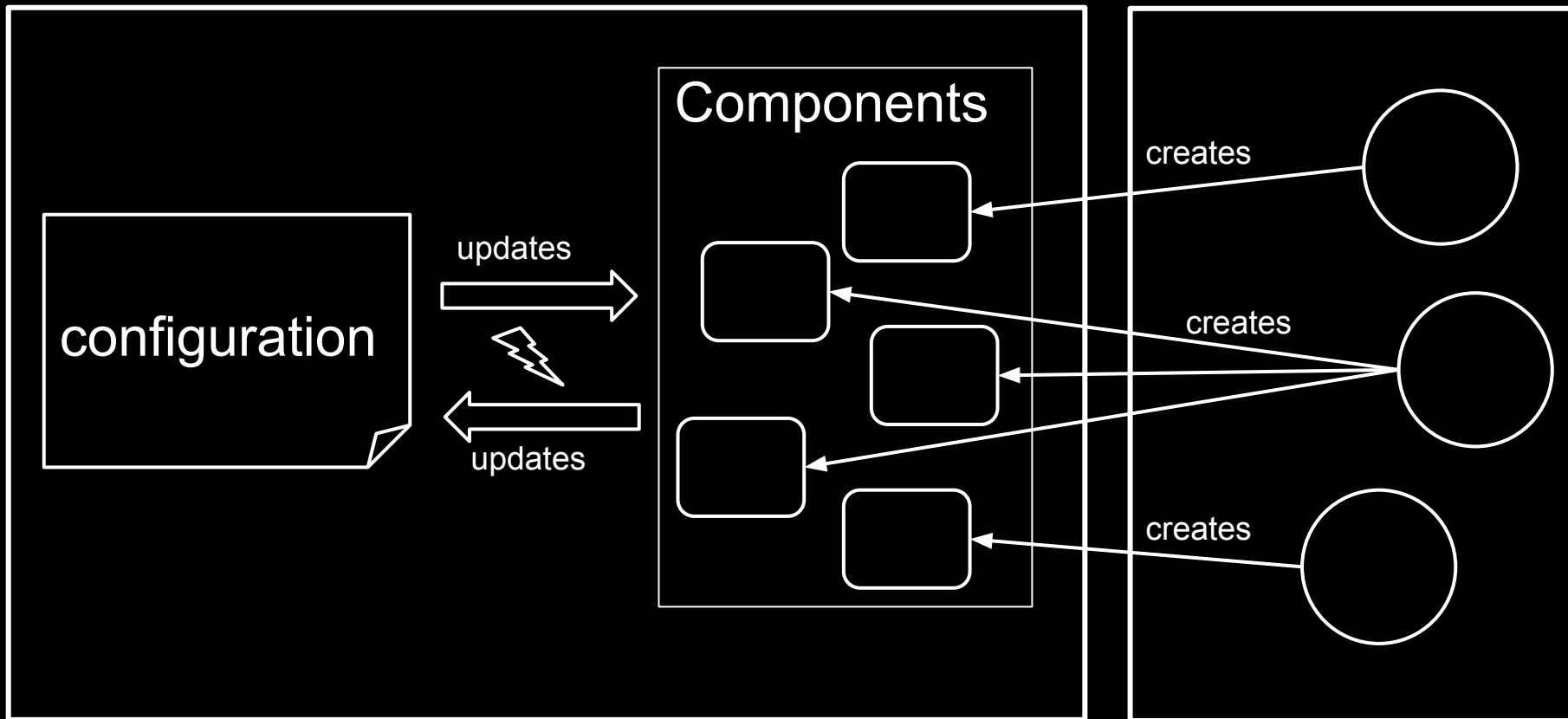


Applications



Chiasm Runtime

Plugins



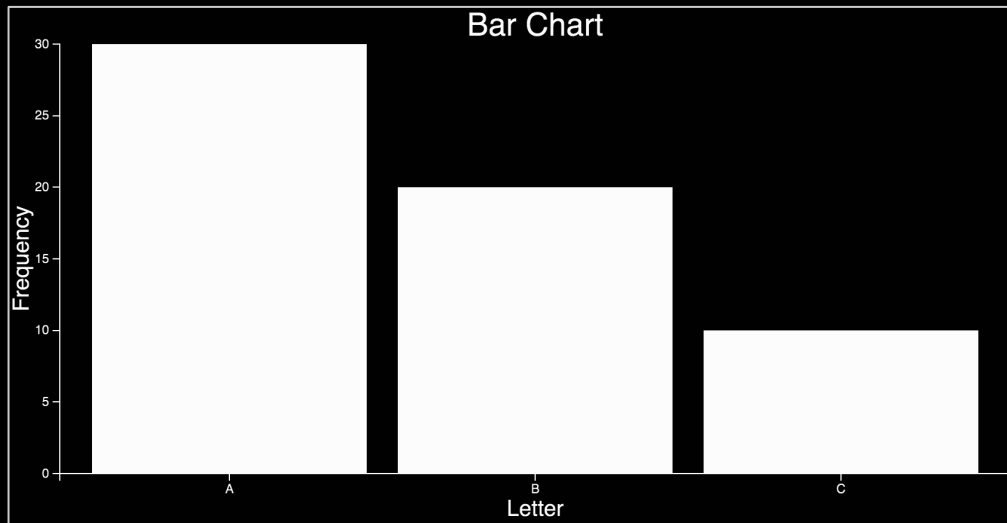
configuration:

alias →

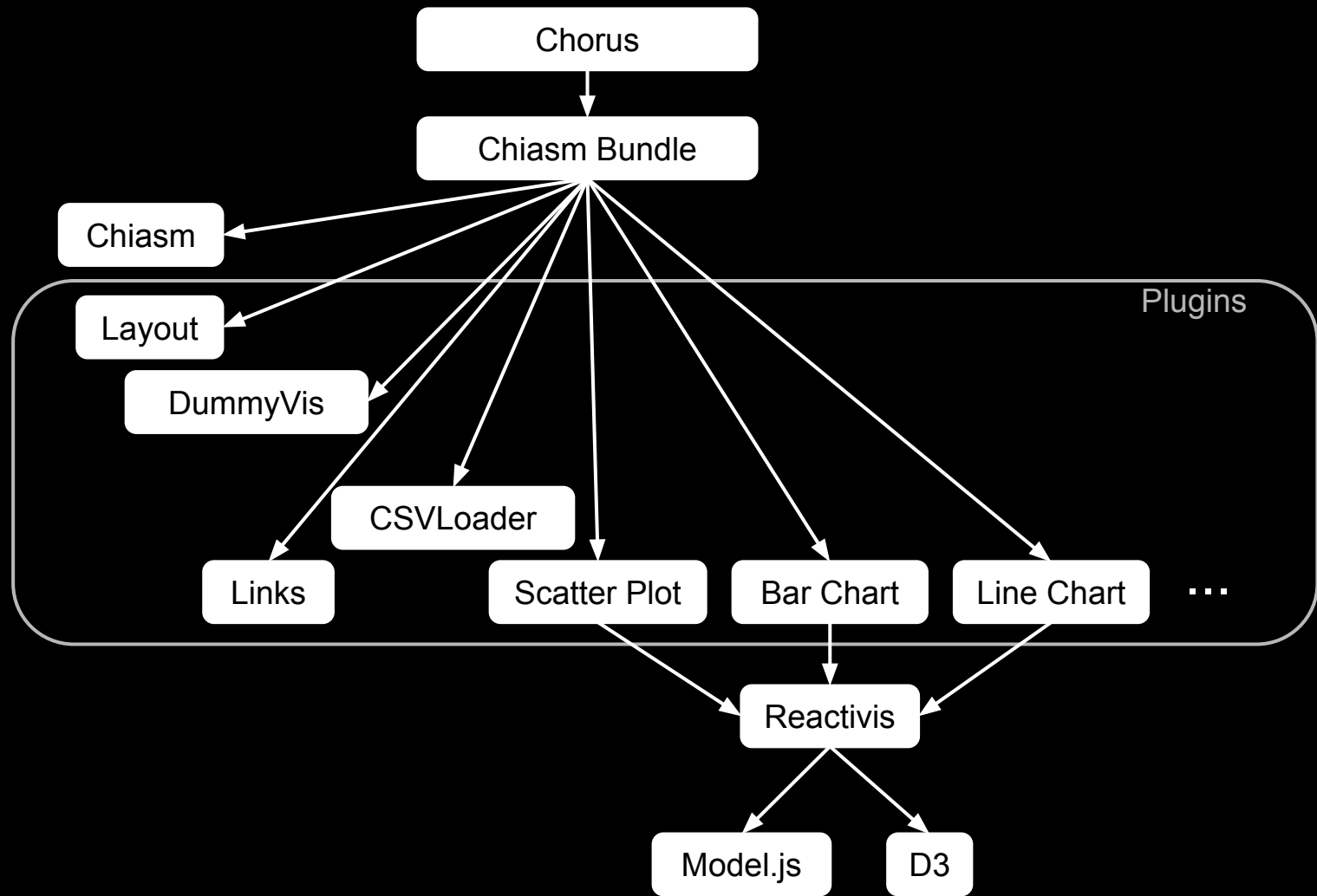
plugin: String

state:

property → value



```
{
  "layout": {
    "plugin": "layout",
    "state": {
      "layout": "barChart"
    }
  },
  "barChart": {
    "plugin": "barChart",
    "state": {
      "xColumn": "letter",
      "xAxisLabel": "Letter",
      "yColumn": "frequency",
      "yAxisLabel": "Frequency",
      "title": "Bar Chart"
    }
  },
  "barChartCSVLoader": {
    "plugin": "csvLoader",
    "state": {
      "csvPath": "simpleBars.csv",
      "numericColumns": [ "frequency" ]
    }
  },
  "links": {
    "plugin": "links",
    "state": {
      "bindings": [
        "barChartCSVLoader.data -> barChart.data"
      ]
    }
  }
}
```

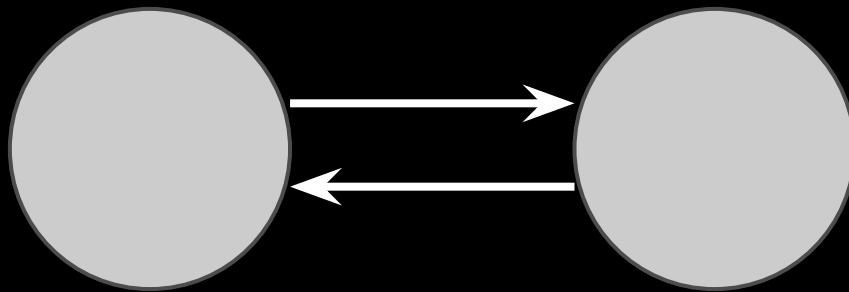


github.com/curran/chiasm

Config Diff → Actions

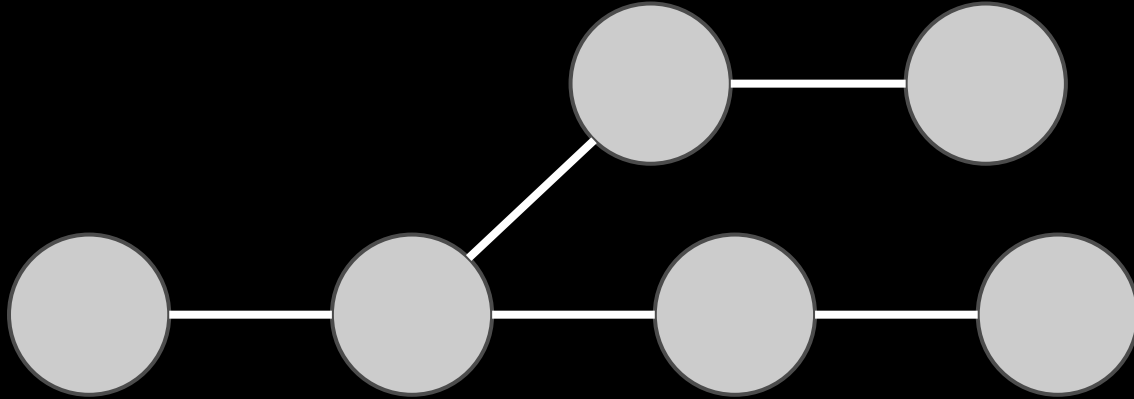
- `create(alias, plugin)`
- `set(alias, property, value)`
- `unset(alias, property)`
- `destroy(alias)`

do: Array<Action>

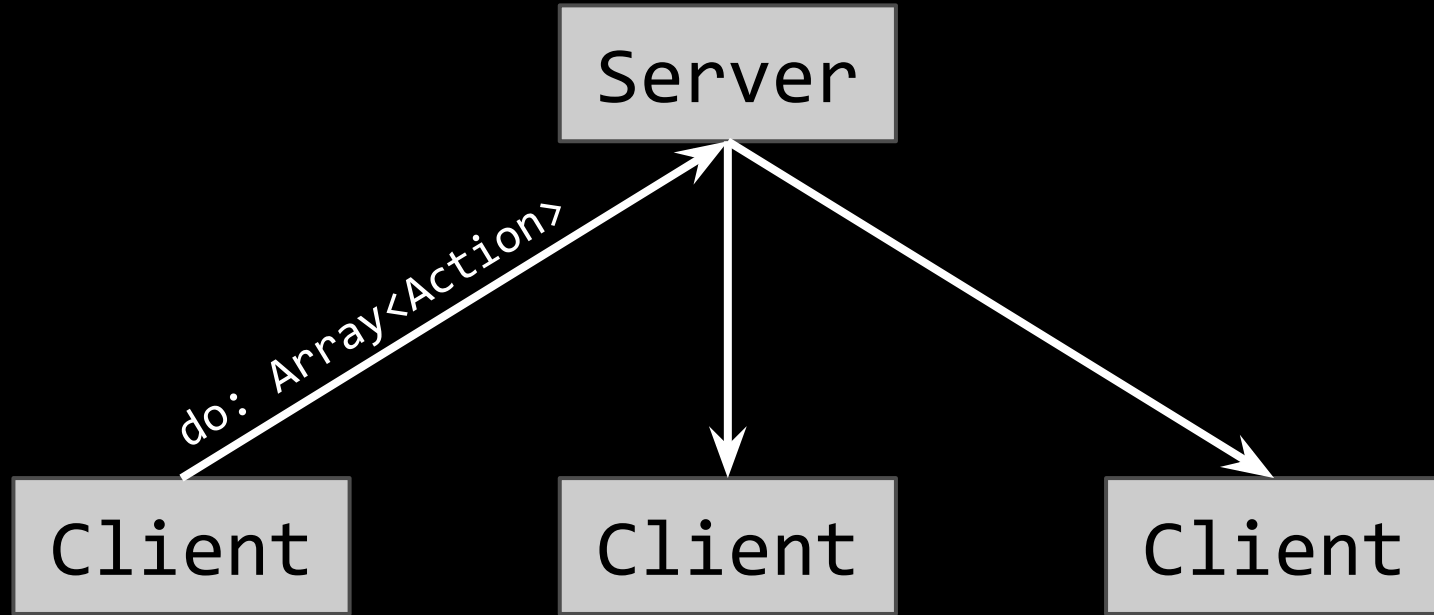


undo: Array<Action>

History Graph Navigation



Real-time Synchronization



Plugin Architecture

- use a plugin
- create a plugin
- test a plugin
- bundle an application

Tasks

create a plugin

- create GitHub repo
- tag a release

use a plugin

- modify Chiasm config

release an application

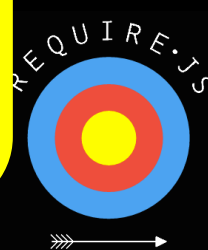
- run Chiasm bundler
- embed in your page

current strategy

package managers



module loaders
& bundlers

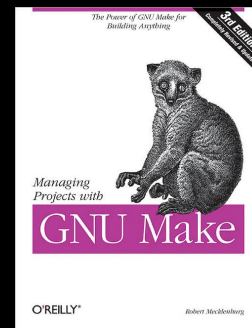


SystemJS
+ ES6
Module
Loader

testing frameworks



task automation

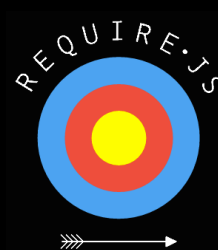


proposed strategy

package managers



module loaders
& bundlers

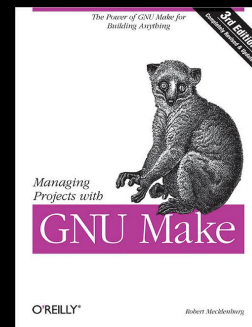


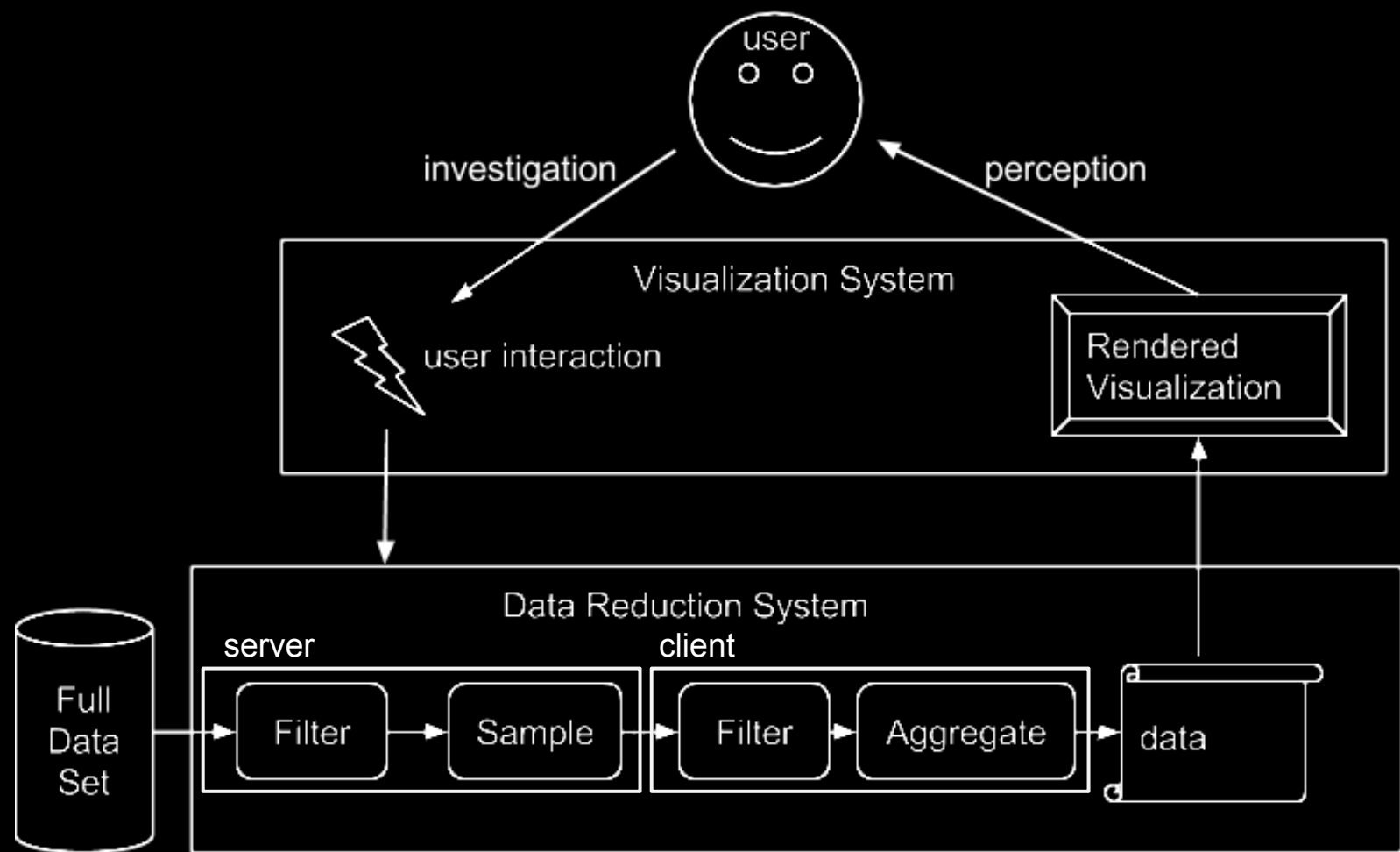
SystemJS
+ ES6
Module
Loader

testing frameworks



task automation





The End

Questions?