

# **ELM Evaluation**

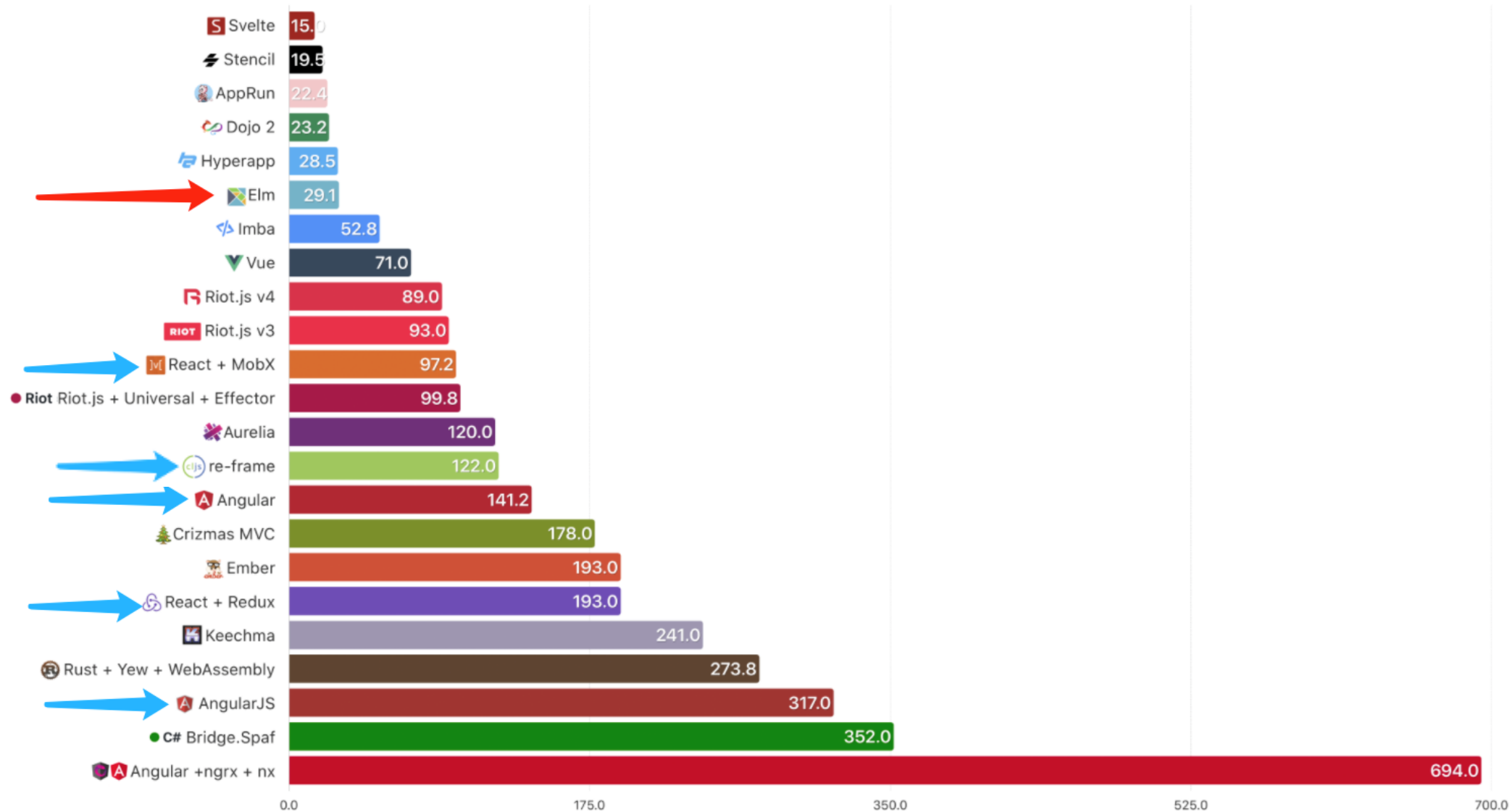
- Group 4: Rui Miao, Xiaoqian Sun

# Criteria

- + Size
- + Lines of Code
- + Performance
- + Functional Paradigm
- + Community
- + Learning Materials
- + Job Market

# Size

- + <https://medium.com/dailyjs/a-realworld-comparison-of-front-end-frameworks-2020-4e50655fe4c1>



Transfer size in KB — fewer is better

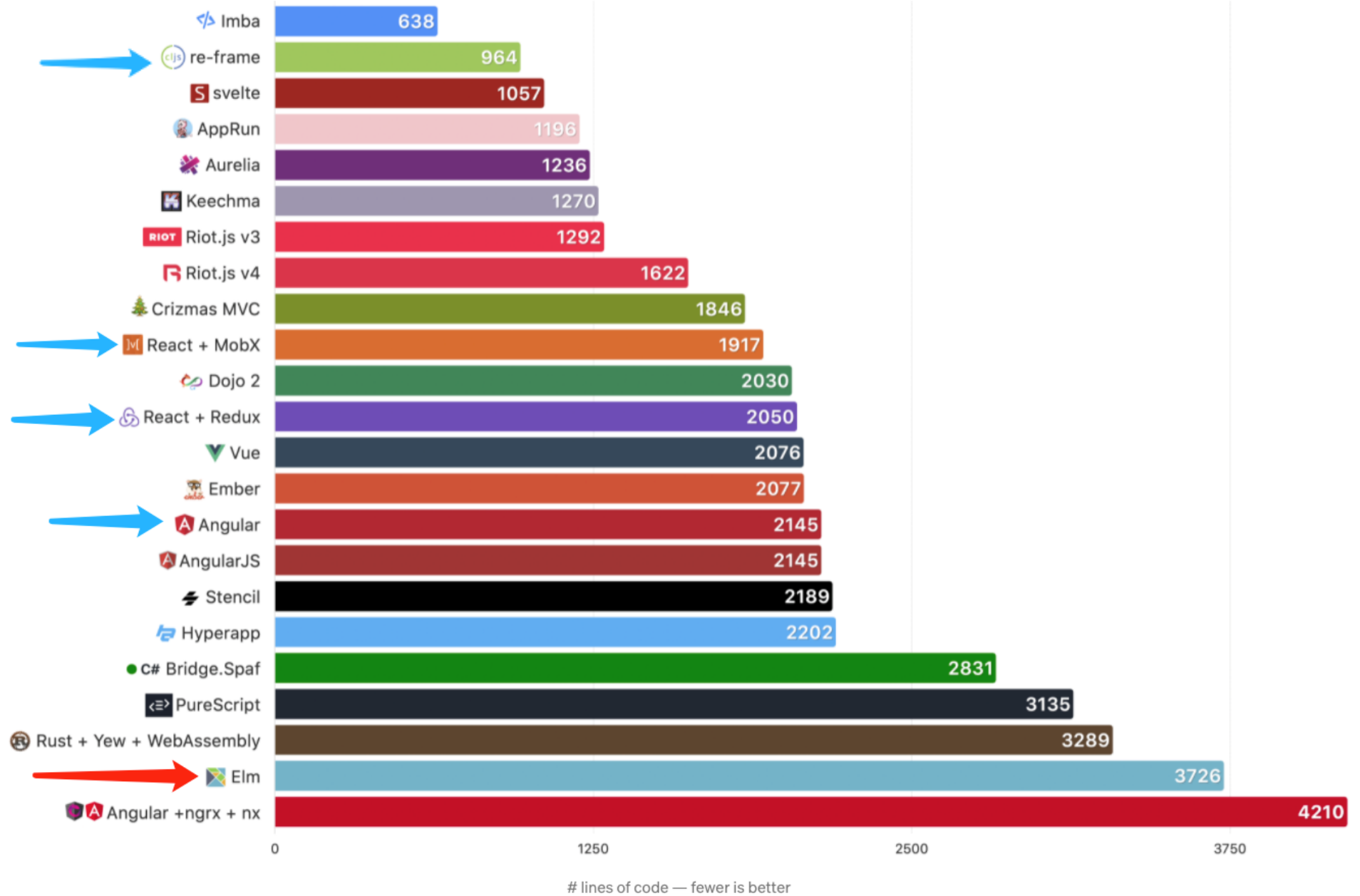
# Lines of code

+ Cloc (*Count Lines of Code*)

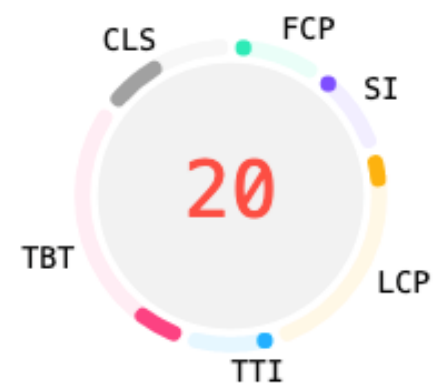
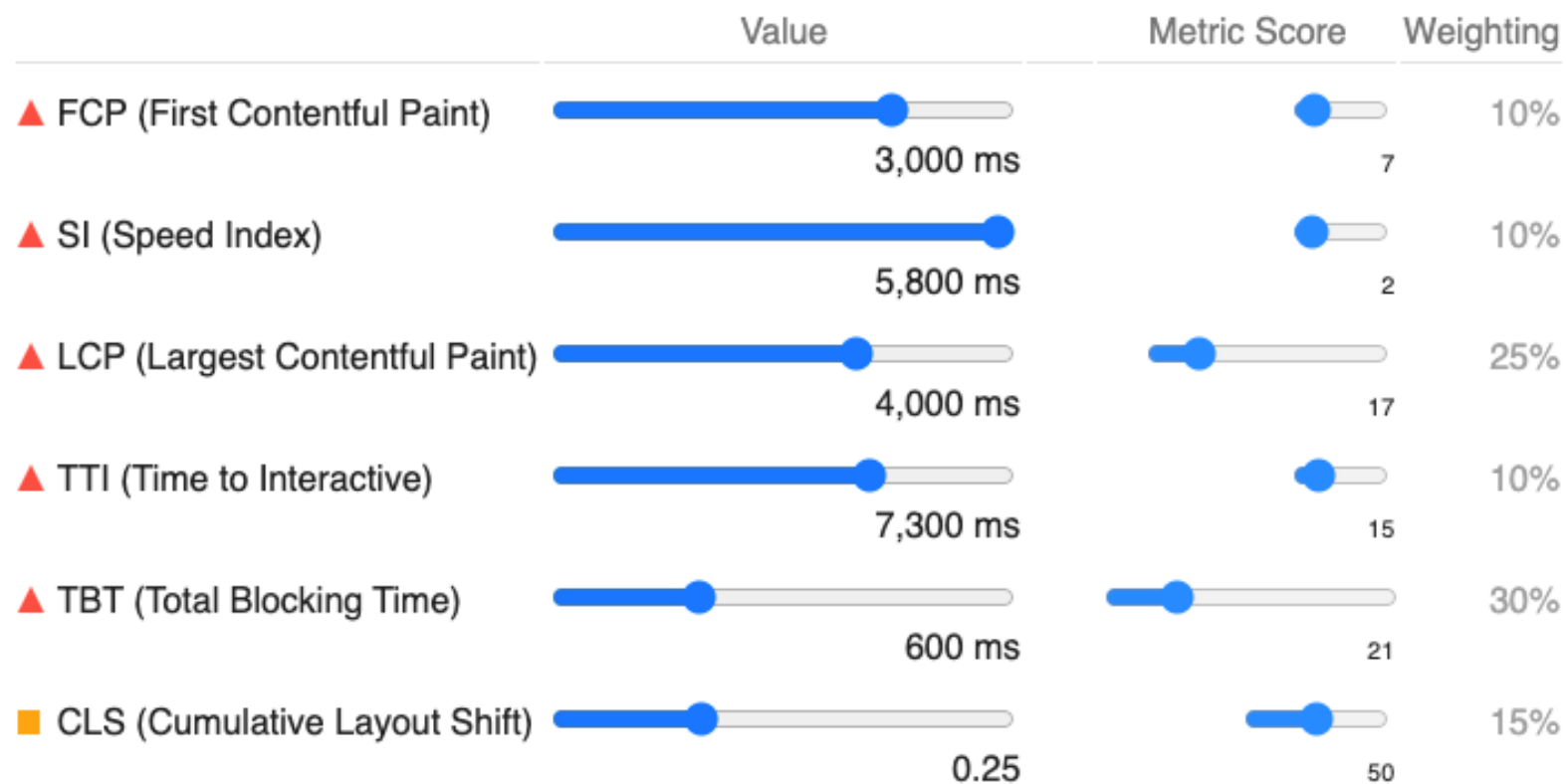
```
prompt> cloc hello.c
      1 text file.
      1 unique file.
      0 files ignored.
```

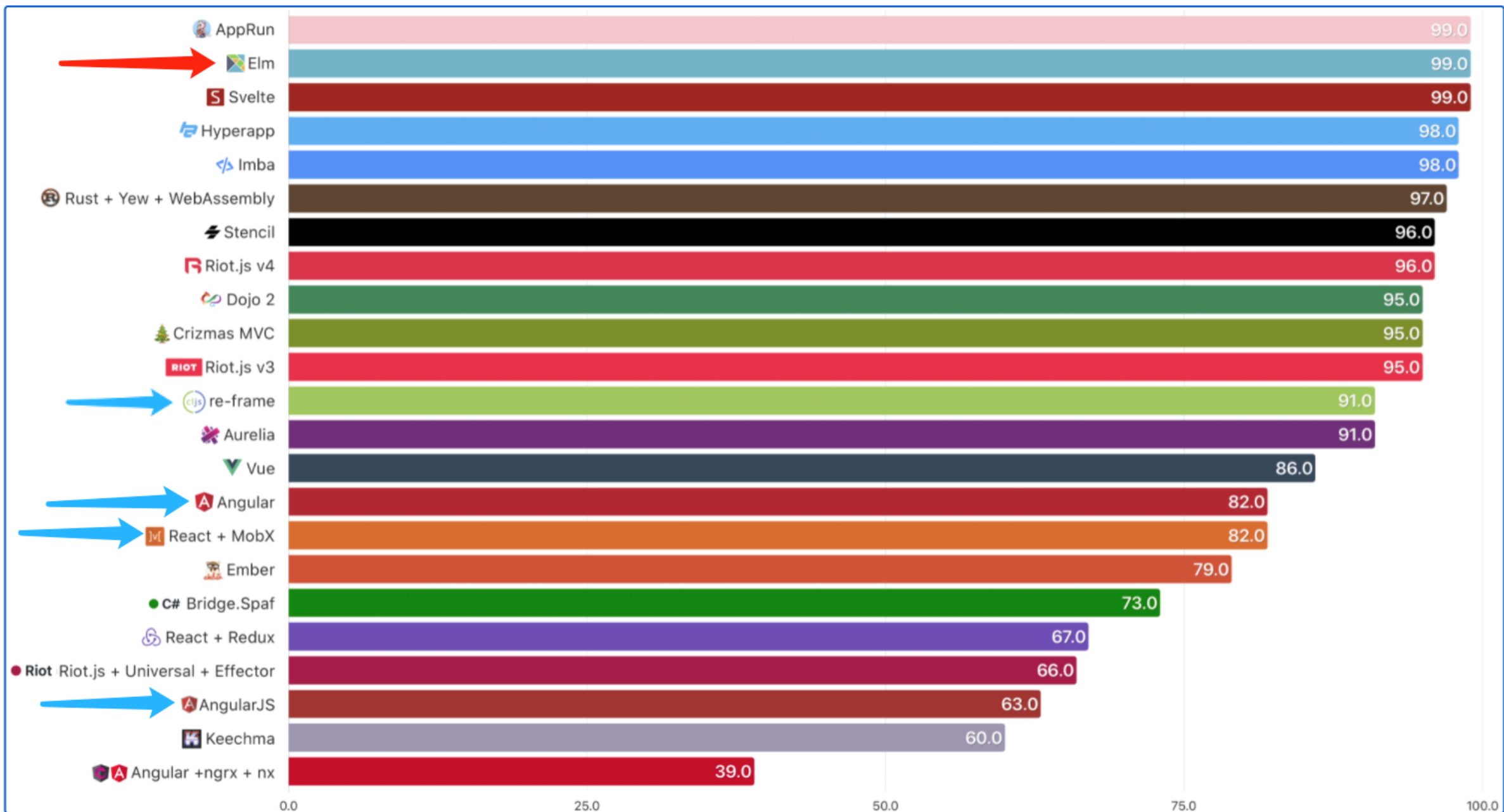
```
https://github.com/AlDanial/cloc v 1.65 T=0.04 s (28.3 files/s, 340.0 lines/s)
```

Language	files	blank	comment	code
C	1	0	7	5



# Performance







# Functional Paradigm

- + First-Class functions
- + Lazy evaluation
- + Higher-Order Functions
- + Immutability(Non-Mutable Data)
- + Modularity
- + Recursive Function-Calls

# Functional Paradigm

	Clojure	Angular	React	Elm
First-class Functions	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Lazy Evaluation	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
High-order Functions	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Immutability	<input checked="" type="checkbox"/>	Both	Both	<input checked="" type="checkbox"/>
Modularity	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

# Community

- + # of conference in 2020
- + # of question tagged with the name of the programming language on Stack overflow
- + # of post on Mozilla Developer Network
- + # of post on SAP Community Network

# Community

	Clojure	Angular	React	Elm
conference	6	7	10	1
Stack overflow	16920	254855	310052	1771
MDN	2	83	103	3
SAP	41	536	34727	726

# Learning Materials

- + # of courses on Udemy, Coursera
- + # of book on Amazon in Web Development & Design department with name
  - “Learning ...”
  - “... development”

# Learning Materials

	Clojure	Angular	React	Elm
Udemy	18	3176	4661	6
Coursera	1	24	79	0
Amazon	31	601	509	0

# Job Market

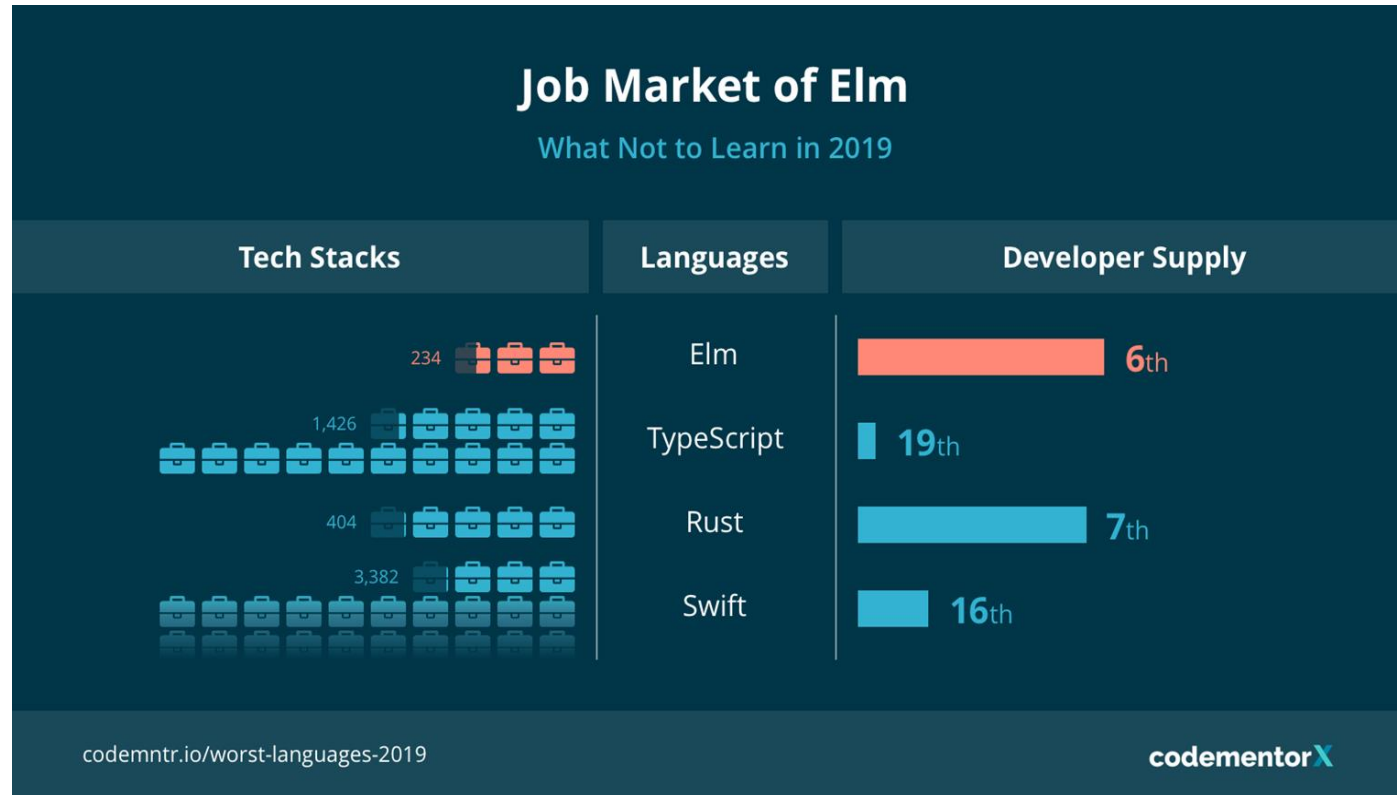
- + Indeed
- + LinkedIn
- + Glassdoor
- + Stack overflow
- + LanguageName + developer
- + Software Development Occupations

# Job Market - Result

	Clojure	Angular	React	Elm
Indeed	234	12486	28835	0
LinkedIn	73429	29563	30399	12891
Glassdoor	147	10015	1400	1
Stack overflow	2871	2873	2874	2871



# Job Market – Supply > Demand



# Reference

- + <https://medium.com/dailyjs/a-realworld-comparison-of-front-end-frameworks-2020-4e50655fe4c1>
- + <https://web.dev/performance-scoring/>
- + <https://github.com/AIDanial/cloc>

**Q&A**

# **Thank you.**

- Group 4 : Rui Miao, Xiaoqian Sun