

SVELTE MAKES IT DIFFERENT

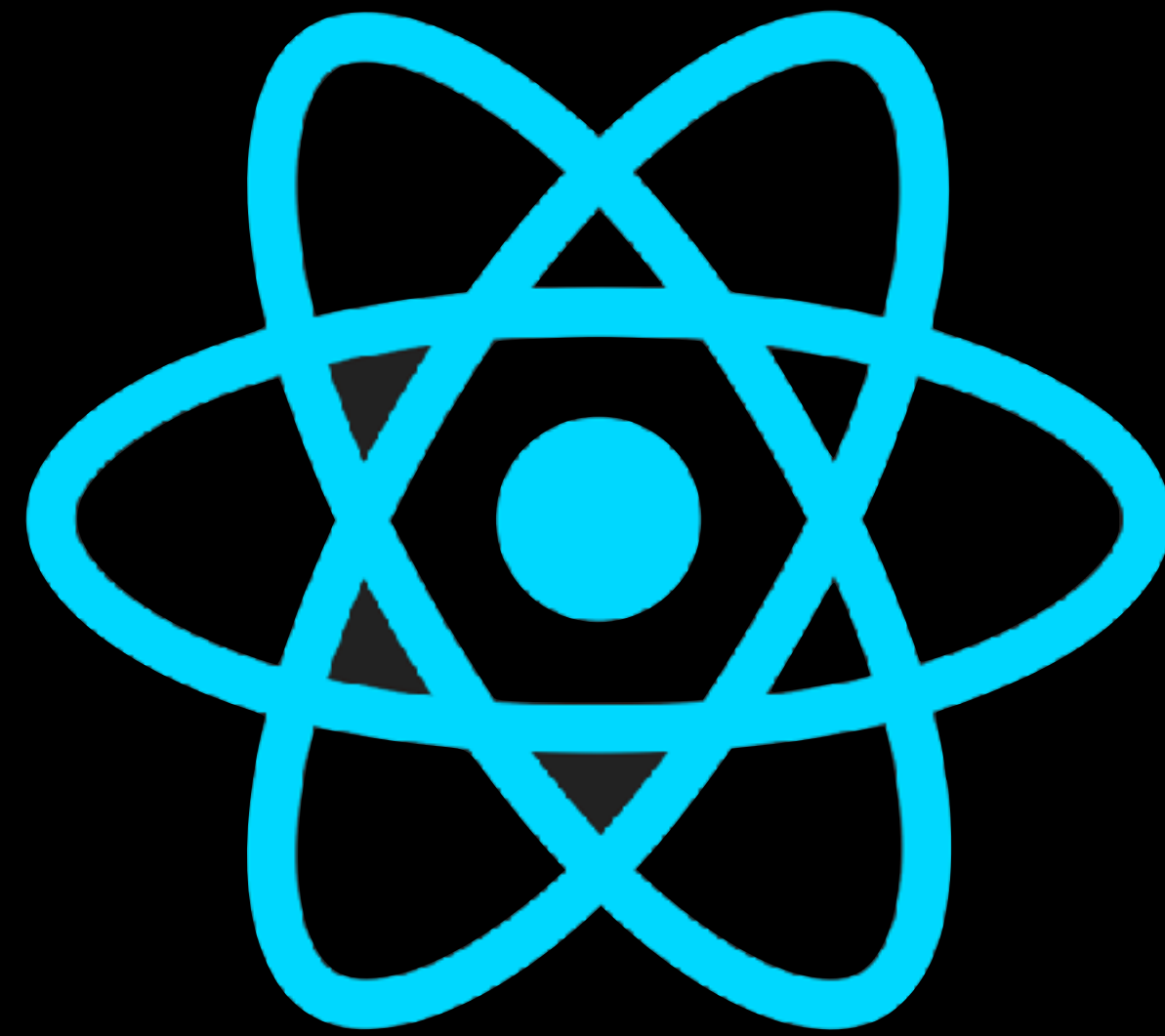
PÄR-ANTON WESTBOM

CADEC 2022.02.02 | CALLISTAENTERPRISE.SE

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ANGULAR



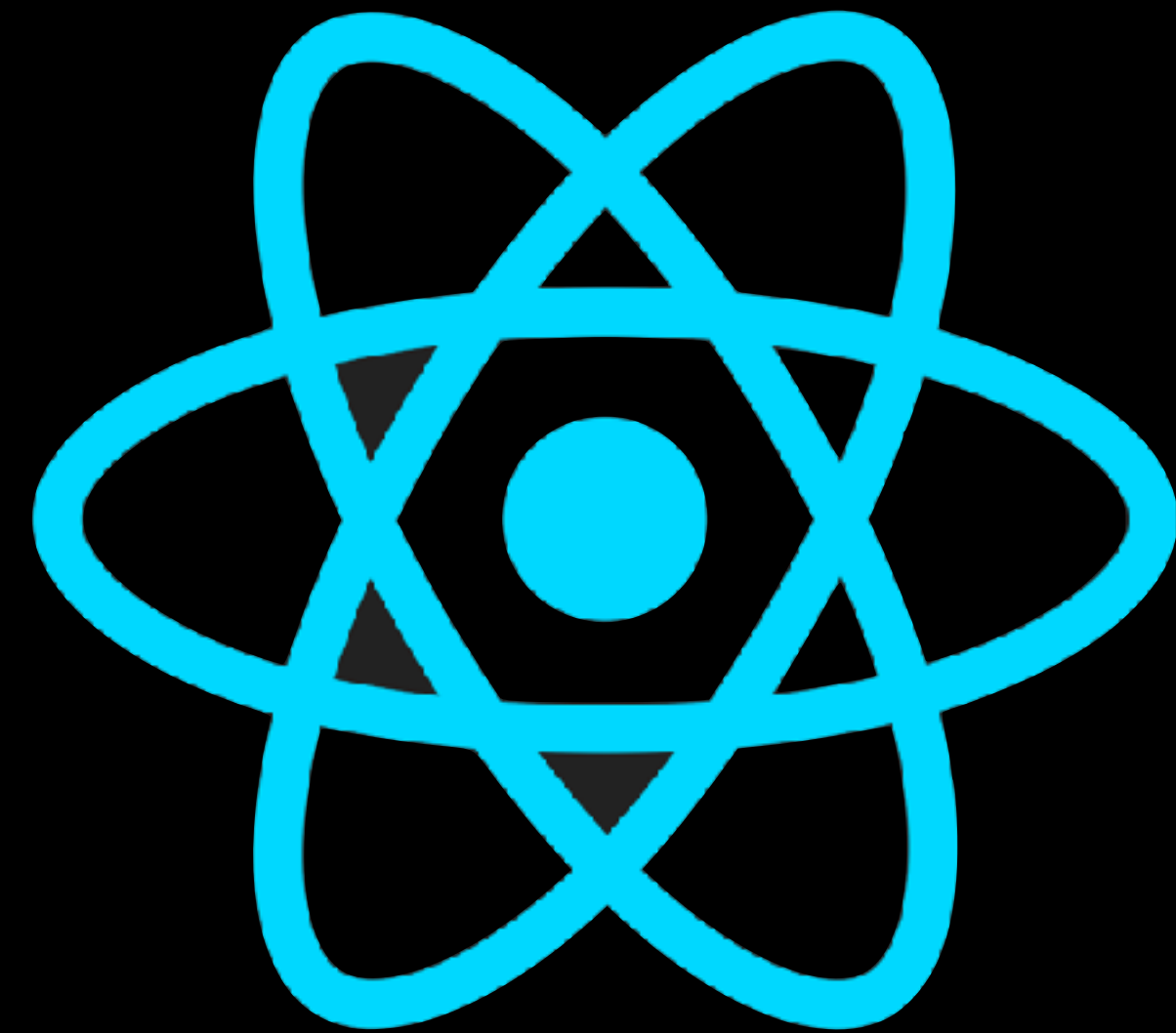
REACT



VUE



SVELTE



REACT

WHAT MAKES SVELTE DIFFERENT

Svelte is a compiler

Svelte has no Runtime



The disappearing
framework

Svelte is a radical new approach to building user interfaces. Whereas traditional frameworks like React and Vue do the bulk of their work in the browser, Svelte shifts that work into a compile step that happens when you build your app.

Instead of using techniques like virtual DOM diffing, Svelte writes code that surgically updates the DOM when the state of your app changes.

<https://svelte.dev/>

| SVELTE'S SELLING POINTS

- Minimize boilerplate code
- Performance (speed, startup, memory)
- Simplicity
- Close to writing HTML, CSS and Vanilla JS
- Svelte in its core can support a lot of things since it is not shipped at runtime (Transitions)
- DX
- UX

| SVELTE TIMELINE

- 2016 November Svelte 1
- 2019 April Svelte 3 (*A lot of templating are removed and much greater DX*)
- 2019 October Youtube channel Svelte society
- 2020 July Typescript support in Svelte
- 2021 March Application Framework SvelteKit becomes Public Beta
- 2021 November Rich Harris gets employed by Vercel and will work 100% on Svelte
- 2021 December Mini Svelte Summit in Stockholm
- 2022 Svelte 4 ?



LET'S LOOK HOW THINGS ARE DONE IN SVELTE

- The Simple Component
- Dynamic Variables
- Events
- Stores (Global variables) (In React Context)

SVELTE MEANS:

Attractively thin, graceful and stylish
Cambridge dictionary

! DONE BEFORE DEMO

```
par-antonwestbom@Par-Antons-MacBook-Pro demo % npm init vite@latest
```

```
✓ Project name: ... svelteDemo
```

```
✓ Package name: ... sveltedemo
```

```
? Select a framework: > - Use arrow-keys. Return to submit.
```

```
  vanilla
```

```
  vue
```

```
  react
```

```
  preact
```

```
  lit
```

```
> svelte
```

```
% cd svelteDemo
```

```
% npm install
```

```
% npm run dev
```

```
http://localhost:3000
```


DEMO!

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| SVELTEKIT

SvelteKit was Announced March (2021) equal to NextJS (React) and NuxtJS (Vue)

These Application Frameworks gives us things as

- Server-side rendering (SSR)
- File Based Routing
- Endpoints (Http endpoints)
- Layout
- ...

CONVENTION OVER CONFIGURATION

**LET'S DEMO
SVELTE-CADEC-2022**

| SUMMARY (COMPARED TO REACT)

+

Small App on low end devices with slow network (a runtime is a large portion here)

Your app has a lot of data and needs to be very reactive

It can evolve fast

Easy to understand for “HTML People” (HTML, CSS, JS)

-

Community size

Third party libs

Documentation and examples

Proven in battle

INTERESTING FUTURE

In React to avoid rerendering

- `shouldComponentUpdate`
- `memo`
- `useCallback`
- `useMemo`
- ...

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**ABSTRACTION
LEAKS**

INTERESTING FUTURE

- React 17 JSX Transform (a compile step)
 - They say that “JSX transform will enable future improvements that reduce the number of concepts you need to learn React”
- In React official docs about hooks when it comes to the dependency array
 - “In the future, a sufficiently advanced compiler could create this array automatically.”
- Very interesting talk on the compile step part, on last React Conference(dec 2021)
- So React is going for a more advanced compile step for a better DX
- Will they manage without breaking the legacy or will it take to long

In React to avoid rerendering

- shouldComponentUpdate
- memo
- useCallback
- useMemo
- ...

ABSTRACTION
LEAKS

REFERENCES

1. Rethinking Reactivity Rich Harris

- <https://youtu.be/AdNJ3fydeao>

2. SvelteKit Crash Course – SSR, API Routes, Stores, Tailwind CSS, and More! James Q Quick

- <https://www.youtube.com/watch?v=UU7MgYIbtAk>

3. Svelte kit app shown in presentation

- <https://github.com/callistaenterprise/svelte-cadec-2022>

4. React without memo

- <https://www.youtube.com/watch?v=lGEMwh32soc>

5. Official svelte doc

- <http://svelte.dev>

6. Official svelte kit

- <http://kit.svelte.dev>



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