

CSS & JS Animations in React

A short guide on animations inside the web and React

Mario Jimenez - 02/19/25

What the presentation is about:

- Brief history of animations on websites
- Brief intro to CSS + JS
- Why animations can improve page metrics
- How to integrate some CSS animation libraries to your websites and React apps
- Some great and impressive examples of animations used inside websites.
- **This is not an all inclusive and comprehensive guide.** More of an intro.

About me

- Former Software Engineer at Socially Elite Pro
- Currently pursuing a Master's Degree of Science in Computer Science
- Volunteer Software Engineer for Austin Public Library. Formally volunteered for Open Austin
- Sometimes build SaaS and online businesses - DevOpsJobs.app | APIplaza.co | [PetWarez Inc.](https://PetWarez.Inc)
- Tech blogger: <https://medium.com/@7adam7e>
- Sometimes create music. Sometimes do photography

Brief history of animations in websites

- Earliest example: Graphics Interchange Format (GIF) in the 1980s (Pronounced either “jif” or “gif”)
- Started gaining more traction in the 1990s. When more internet users were going online
- Early 2000s: Main animation tool was Adobe Flash. Was used in almost every website and app on the web at one point until being discontinued. For many reasons (unsecure, bad on mobile)
- JS + HTML5 + CSS3 nowadays. With JavaScript becoming the most popular software for web animations



Brief intro to CSS + JS

- CSS was developed by Håkon Wium Lie, to separate styles from code on site-> Good for animations
- JavaScript was developed by Brendan Eich during NetScape Era. - > Also good
- HTML5 -> Latest animation tool
- You can use HTML5 + CSS + JS all at the same time. Or 1-2 at the same time

You can do pretty much anything you can think of using animations

- Interactive menus
- Video Games
- Data science project
- Help guide
- Short films
- Art and photography galleries
- Product mockup
- Architectural dioramas
- Planetary system show
- Marketing campaings
- Movie promos
- Music artist features

Why animations can help you:

- Make your React app more interactive and more fun for non-technical users
- Users tend to remember cool looking animations and sometimes come back to see it again. Sometimes even telling their friends and family (Word of mouth funnel)
- Direct your clients to the specific section or feature of a web app or web page you want them to see
- Increase Click through rate (CTR) / app / conversion rate for visitors.
- More sales for specific product being sold on your product

How to integrate animations to website

- Custom code snippets
- External libraries
- Inline code
- Animation frameworks. From npm's website for easy installation

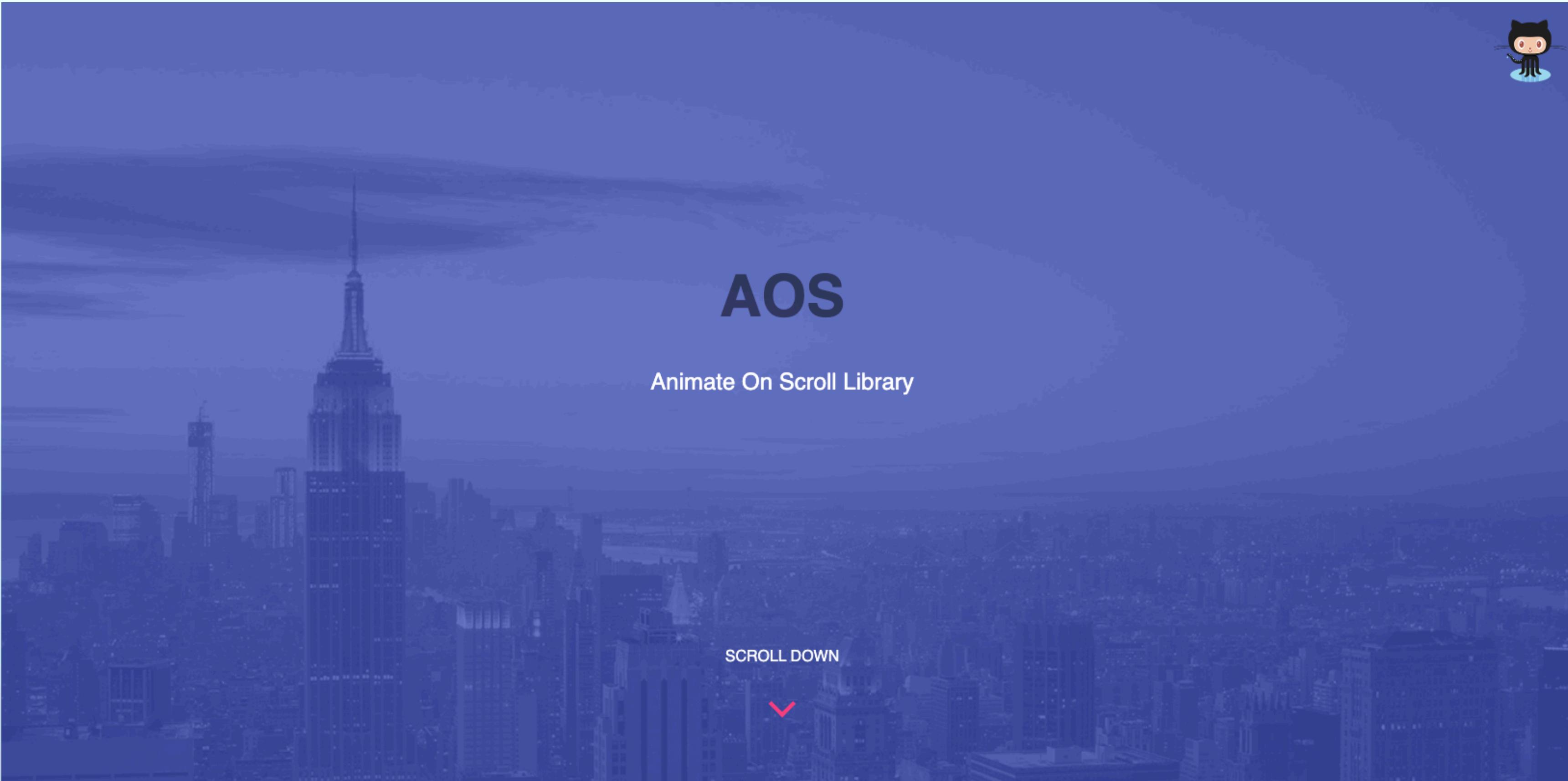
Possible pitfalls and Cons

- Too many animations turn users off.
- Too much content being loaded at the same time can make it sluggish
- Bad animations / animations done badly can also turn users away
- Some animations don't work on some specific browsers (Chrome with WebGL animations or CSS3 animations Safari)

Example JavaScript/React animations library

Animate on Scroll

- <https://michalsnik.github.io/aos/>



Some animation library examples

- animate.css - <https://animate.style/>
- anime.js <https://animejs.com/>
- granim.js <https://sarcadass.github.io/granim.js/examples.html>
- D3.js - https://observablehq.com/@d3/gallery?utm_source=d3js-org&utm_medium=hero&utm_campaign=try-observable
- Fullpage: <https://alvarotrigo.com/fullPage/#page1>

Good examples of functional animations

- Codepen(great inspiration site) - <https://codepen.io/search/pens?q=>
- <https://warhol-arts.webflow.io/>
- <https://www.apple.com/imac/>
- <https://www.apple.com/macbook-pro/>
- <https://threejs.org/>
- <http://robinmastromarino.com/>
- <http://vr.ff.com/us/>
- <https://demos.littleworkshop.fr/infinatown>
- <https://hajimewatanabe.jp/biography/>
- <https://hsmkrt1996.com/>
- <https://poki.com/en/g/crossy-road>
- <https://neal.fun/design-the-next-iphone/>
- <https://neal.fun/absurd-trolley-problems/>
- <https://virtual.bbcmic.ro/?disc1=bs-badappl.ds&autoboot>
- <https://iss-sim.spacex.com/>
- <https://history-of-animation.webflow.io>
- <https://giphy.com/search/lunar-new-year>

Conclusion

- Adding animations to your website or app can make everything look much better. But can turn people away from your project if not handled well
- Use in moderation.
- And test before shipping your code
- Don't be intimidated when making any complex animation projects online.
- **You can do any of the web projects I showed you today. And even make them better.**

Reach out to me if you have any questions :

- Github: <https://github.com/tjdev7/>
- Website: <https://tjdev7.co/>
- Twitter/X: <https://twitter.com/Tjdev7>
- LinkedIn: <https://www.linkedin.com/in/mariojimenez1/>
- Medium: <https://medium.com/@7adam7e>

Resources:

- <https://github.com/tjdev7/reactatx-css-js-react-animations>
- <https://kinsta.com/blog/javascript-libraries/>
- <https://www.microverse.org/blog/javascript-library-vs-javascript-frameworks-the-differences>
- <https://www.awwwards.com/websites/animation/>
- <https://medium.com/@milberferreira/the-history-of-web-animation-63b106c97fdf>
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