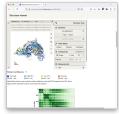
Programming for the web An introduction to front-end development with React

An introduction to front-end development with React Rens Holmer July 5, 2024



Web development in bioinformatics





Uniprot

Alphafold-DB





JBrowse

NCBI BLAST



Goal of this session

Introduction to building interactive websites

Activities

- Familiarize yourself with main building blocks of a website
- Learn about modern toolchains and frameworks for the web
- Build your own interactive bioinformatics data visualization

Material

git clone https://github.com/holmrenser/introduction_to_react



Assignment I

Explore two versions of a simple static website:

```
example/simple_site
example/simple_site_single_file
```

- Open the workshop folder in an IDE (e.g. VSCode)
- Open index.html in a web browser
- Click the button
- Explore the code
- Discuss



Some technical background



Javascript quirks I



Modern JS

- frameworks
- transpiling
- component re-use
- state management
- AJAX



Assigment II

Build a React app for visualizing MSAs

