

Charles Marshall
Noah Waxman
Ethan Rule
Mark Shinozaki
Ben Weber

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CPT_S 322 Milestone 8

Team Name: FireMap

Video Demonstration Link: <https://youtu.be/PCytDK2ffjI>

Important Lessons Learned

This project provided valuable hands-on experience with important aspects of software engineering in a professional setting, such as the planning process, creation of visual design diagrams, and coordinating our efforts as part of a collaborative group. Implementing the FireMap website also proved to be a great exercise in improving our skills with the tools and technologies used to build it, particularly React, JavaScript/JSX, and CSS.

While creating this web app, one of the most important experiences we had was learning how to apply our web development skills to create interactive and dynamic components. We wanted to allow users to interact with the map to see details about the fire and the weather surrounding it, and to do so we centered our approach around using APIs to bring the user real-time information. Using APIs to retrieve current wildfire and weather data published by the National Interagency Fire Center (NIFC) and National Weather Service (NWS), we were able to create a more robust and sophisticated application as well as gain experience in data integration, manipulation, and analysis.

Gaining experience with APIs is important for all modern software developers, but perhaps one of the most important experiences gained during this project was using git and GitHub for version control and collaboration between our teammates. By using git, we could track our teammates' changes in the code, as well as our own with ease. GitHub not only allows us to easily manage our codebase and push updates seamlessly, it allows us to track our progress, improve the maintainability and flexibility of the software, improve the quality of the code, and work on the project without disrupting each other's work.

Project Contributions

Mark

- Milestone assignments

Ethan

- Tried to lock map the US not functional
- Added testing functions
- Worked on milestones

Charles

- Milestone Diagrams
- NIFC and NWS API integration
- Inclusion of fire data into sidebar

Noah

- Added extra sidebar information
- Modified animations when clicking a firemarker
- Added state filter
- Worked on test cases

Ben

- Website Front End/Styling
- Map and sidebar components, darkmode

Areas of Improvement

- Could have used branches on git if the project were to scale larger
- There were a couple bugs to be fixed like snapping the map to the US and the info in the sidebar sometimes updates slow or not at all.
- The state filter does not revert to showing all states, requires refresh on page
- Sidebar component sometimes displays inaccurate information for weather