

Bridger Ski Foundation Volunteer Web App



Andrew Anselmo, Michael Buffington, Alex Krings, Nathan Parnell

Introduction

- Bridger Ski Foundation (BSF) is a nonprofit community ski organization who provides and funds educational and competitive programs in Nordic, Alpine, Freeskiing, Freestyle, Freeride, and Snowboarding.
- Hundreds of people volunteer every year to help BSF carry out their events
- Volunteers are rewarded with a voucher code which gets them a free day pass at Bridger
- BSF's current method of dealing with volunteer sign ups and rewards was not working for them
- We created a web application for BSF to simplify/automate the volunteer sign in and reward processes

Process Revision

Old Process

- Volunteer signs in on paper
- Later, BSF has to find that volunteers email
- Manually write and send them an email containing their voucher code
- Do this for every single volunteer from that day
- Very time consuming with a lot of volunteers

New Process

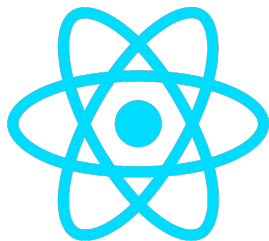
- Volunteer signs in on our web app
- Our application stores all of their contact information in a database
- And then automatically sends a voucher code to every volunteer
- No paper, no hassle, and all volunteer information is stored automatically and cleanly in one location

Stack

- Front End
 - React
 - React Router
 - MUI Material UI
- Backend
 - Firebase NO-SQL database
 - Cloud functions
 - Authentication
- Other
 - GitHub Actions CI / Jest for testing
 - Sendgrid emailing
 - Waiverfile



Firebase



React



GitHub Actions



User Testing

User One

- Easy to navigate
- Didn't like launch page
- Found a bug in the signup page

User Two

- Improve the Help page
- Stumbled upon the same bug
- Thought the Nav bar could be prettier

Andrew's Contributions

- Set up contact information page
- Set up Firebase authentication / admin functionality (create, login, log out)
- Set up CI with Github actions
- Wrote unit tests with Jest that automatically are run with Github CI on every new push to the repo
- Set up waiver signing functionality through waiver file

Alex's Contributions

- Implemented various MUI elements to display database information
- Created the import voucher functionality
- Created and maintained technical documents
- Performed User Testing

Michael's Contributions

Implemented routing plan

Race management functionality

Emailing functionality

A lot of the backend functionality

Nathan's Contributions

- Created “Edit Registered Volunteers” page for easy access to edit or remove volunteers (Ended up being rolled into the base Volunteer Page)
- Created a BSF-Themed MUI theme
- Modified the router structure to better work with theming

Roadblocks

- Andrew:
 - Waiver integration
- Michael
 - Client/server side rendering
 - Non-relational database
- Github Actions
- Router + theme

Demo Time

Questions?