

# Nicholas Welch

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PORTFOLIO [www.nwelch.com](http://www.nwelch.com) • GITHUB [nwelchr](https://github.com/nwelchr) • LINKEDIN [linkedin.com/in/nwelchr/](https://linkedin.com/in/nwelchr/)

**SKILLS** Ruby, Rails, JavaScript, React.js, Redux, jQuery, HTML5, CSS3, SQL, git, TDD

## WORK SAMPLES

**Bop** (Rails, PostgreSQL, React.js, Redux, React Player) | *Sole Developer*

[live](#) | [github](#)

*A Spotify clone that allows users to stream music, create playlists, and follow other users and artists.*

- Integrated Redux's global application state and React Player's local state management to ensure seamless navigation and audio playback and facilitate future scaling
- Utilized Rails' ActiveRecord polymorphic associations and concerns to keep code scalable and modular
- Leveraged CSS3 transitions and custom React modals to maintain a responsive UI/UX

**Moving On** (JavaScript, CSS3, HTML) | *Sole Developer*

[live](#) | [github](#)

*A minimalist side-scrolling platformer that encourages cooperation and intuitive thinking to solve puzzles.*

- Designed custom state management architecture for unidirectional data flow, granting full control over object manipulation while preventing data collision
- Employed HTML Elements and standard DOM manipulation for flexibility over frame animation and styling
- Integrated asynchronous functions and Promise logic to efficiently update animation frames only when needed

**Project Phantom** (React VR, ReactJS, npm, npx) | *Collaborator*

[live](#) | [github](#)

*A developer's toolkit for streamlining the creation of applications in virtual reality.*

- Created a component library as a Node.js module that facilitates the transition between React and React VR and dynamically handles 360° visualization of content
- Published an npx package build and runner that creates a pre-configured React VR project and streamlines the setup process
- Developed a file processor that extracts elements from a static HTML page and renders them in a VR preview

## EXPERIENCE

**Language Instructor**

*Self-Employed*

Oct 2015 - Feb 2018

- Designed and conducted 1000+ private ASL, English, and French lessons with a 99% approval rate from students
- Adapted lesson structure according to students' varied cultural and linguistic backgrounds

**Technology Advisor and Webmaster**

*Penn Computing, University of Pennsylvania*

Aug 2012 - Aug 2015

- Refactored and updated CSS and HTML code segments for the Penn Computing website
- Consulted staff and students in hardware and software troubleshooting, including network configuration, DHCP lease renewal, custom computer assembling, remote desktop connection, and antivirus security measures
- Co-managed the successful relocation of Van Pelt Library's website and improved catalog storage systems through reorganization of data

## EDUCATION

**Web Development** - App Academy (Spring 2018)

**BA Education** - University of Pennsylvania, 2016 (*summa cum laude*)