

# NICOLE SANSONE

software engineer

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## SKILLS

Technical: **React, Redux, Ruby, Ruby on Rails, Javascript, HTML, CSS3/SCSS, SQL, SQLite3, PostgreSQL, Git, jQuery, RSPEC, D3, Google Maps API, AWS S3** | Foreign Language: **French - full professional proficiency**

## PROJECTS

**OpenRes** (Rails, React, Redux, Google Maps API, AWS S3)

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

*A full-stack clone of OpenTable where users can search for restaurants, make reservations, and review their experience*

- Incorporated React-Redux container and Redux selector patterns that enable access to restaurant details, reservations, and reviews throughout the entirety of the front-end
- Connected the Rails back end to AWS S3 for image storage and organization that demonstrates production-level scalability, while maintaining content security with AWS IAM
- Managed reservation and comment CRUD functionality through custom transactional database operations enforced by both database level constraints and model-level validations using Active Record and PostgreSQL
- Implemented custom search features that allows for filtering by name, Rails associations, and geographical bounds using Google Maps API
- Created the ability to switch to an alternate CSS theme that focuses on meeting web accessibility standards to provide increased usability and quality user experience for those with visual and cognitive impairments or physical limitations

**Global Gender Equality** (JavaScript, D3)

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

*A data visualization of global gender equality statistics using vanilla Javascript and D3/SVGs*

- Leveraged D3 and SVGs to create a 3-dimensional, manipulatable, and interactive globe that incorporates multiple avenues of data interaction, helping to accommodate both spatial and linguistic learning styles
- Personally organized and recorded data points into tsv files for use in multiple visual components throughout the app
- Demonstrated a range of complex visual functionalities through both CSS and JavaScript, including the addition of 3-dimensional qualities to a 2-dimensional object, object rotation, manipulation, animation, as well as color-mapping through a percentage range determined through JavaScript functions

## EXPERIENCE

**Research Associate II**

*Prometic Biosciences*

Jun 2016 - Mar 2019

- Developed identification and quantification assays using liquid chromatography and mass spectrometry, crucial for the submission of an FDA biologics license application
- Trained junior team members in routine assay performance as well as assay development, helping to promote a team culture of collaboration as well as innovation and self-sufficiency
- Implemented highly specific Good Manufacturing Practices, FDA regulations, and International Conference on Harmonisation guidelines into assay development to ensure a smooth transition to manufacturing and production

**Research Assistant**

*Carnegie Mellon University, Department of Chemistry*

Jan 2013 - May 2016

- Improved functionality of peptide antibiotics through chemical modification
- Developed and tested coatings for improved accuracy in blood diagnostic techniques
- Designed battery electrode composite materials with increased capacity performance for use in large-format energy storage devices

## EDUCATION

**Web Development** - App Academy | Summer 2019

**BS/MS Chemistry** - Carnegie Mellon University | 2011 - 2016