

# Marie Goetzke

Software Engineer  
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[PORTFOLIO](#)  
[GITHUB](#)  
[LINKEDIN](#)

**TECHNICAL SKILLS** React, Redux, Ruby, Rails, JavaScript, jQuery, HTML, CSS, SQL, PostgreSQL, SQLite3, R, Python, Git, Webpack

## PROJECTS

**Flack** (Rails, React, JavaScript)

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

*Flack is a web-based instant-messaging application inspired by Slack.*

- Incorporated Ruby on Rails' Action Cable to manage websocket connections for database persistence and live broadcasting of messages to the channel in view
- Configured PostgreSQL database and Rails models to utilize polymorphic associations to reduce needed tables by 40%, heavily DRY up backend code, and ensure scalability
- Followed React / Redux best practices of unidirectional flow-of-state to ensure DOM manipulation reflects real-time updates to messages and channels
- Leveraged custom SQL queries taking advantage of Active Record associations to extract data from multiple tables in a single query reducing server load

**Mapping The Met** (JavaScript)

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

*Mapping the Met provides a visualization of the Metropolitan Museum of Art's collection.*

- Integrated Metropolitan Museum of Art's API and JavaScript asynchronous functionality to fetch collection information for all countries before displaying data to give user a seamless, uninterrupted experience
- Utilized JavaScript D3.js library to create interactive visualization of museum's collection allowing user to interpret data with geographic context
- Implemented DOM event listeners to perform additional API calls and load country-specific information based on user interaction, improving user experience by limiting unnecessary and time-costly data loads

## EXPERIENCE

**Data Analytics and Business Consultant**

IBM

August 2017 - August 2019

- Supported the development and delivery of custom applications by collaborating across internal and client teams to solicit requirements, establish consensus, track progress, and manage documentation for the software development life cycle
- Created custom staffing models for client using historical analysis and time series forecasting in R, reducing manual calculation time by 75%
- Built Python program to synthesize input datasets for optimization software, significantly reducing runtime of optimization calculation
- Managed activities surrounding proposals and bids for major upcoming mergers to include defining and analyzing market KPIs, identifying IBM's competitive position, establishing team consensus, and developing client-facing proposal
- Developed client and industry perspectives for executives by integrating academic studies and market research on current healthcare and pharmaceutical operating environments

## EDUCATION

**App Academy** - Software Engineering

August 2019 - November 2019

*1000-hour immersive full-stack web development program teaching Ruby, Rails, SQL, JS, React, TDD, algorithms, design patterns, and programming best practices*

**Princeton University** - AB History

June 2017

*Applicable Courses: Introduction to Computer Science (Java), Calculus I, Calculus II*