

Bill Reed Software Engineering billnreed@gmail.com github.com/snowbillr

I am a value-deliverer first, people-enabler second, and software-engineer third. Producing high quality features, helping others around me to grow and improve, and crafting awesome developer experiences are my goals.

Work Experience

Tech Lead, Breezeway

September 2021 - August 2022

Led the company's largest engineering team with the widest scope to deliver impactful projects in a collaborative and teamwork-oriented environment. Led technical discussions and decision making on the team, mentored engineers on the team in both hard and soft skills, and made large-scale contributions to the codebase. Worked directly with my product counterpart to plan the team's roadmap, estimate technical feasibility, discuss technical risks and trade-offs, and improve team processes. Worked with other team's tech leads to spread engineering knowledge and best practices across teams. Introduced the usage and creation of playbooks for handling common scenarios during day-to-day activities. Acted as a subject matter expert for the front-end, answering questions about best practices. Recommended design patterns, and set examples in the front-end and back-end codebases. Conducted interviews for engineering positions.

Development Cycle Process Updates	Changed the team's development process from a black-box development cycle with unpredictable timelines and deliverables that did not meet product requirements into a transparent process that delivered features meeting product requirements with reasonable timelines.
Accommodated Shifting Business Strategies in a Startup Environment	Made process changes to my team to target changing business goals from fast-paced feature focused development to stable engineering growth and back again.
Deep Selection Design Pattern Standardization	Standardized the API contract for deep selection in the application. Created reusable code for the front-end and back-end to enforce the pattern and API contract. Created and promoted engineering guidelines for using the new design pattern. Resulted in no more hard to diagnose bugs in various deep selection areas of the application.
User Settings	Implemented the design pattern for user settings. Created with the developer experience in mind so that it was easy to work with. Supported default settings and simple access of various settings through the user model.
Testing Factory Education	Gave a tech talk around the proper usage of factories in tests. Encouraged best practices and was a resource for questions on the topic before and after the tech talk.

Senior Software Engineer, BookBub and Chirp Books

September 2016 - September 2021

Worked as a fullstack engineer at BookBub across multiple projects with a focus on front-end development. Became known as an expert within the company on front-end best practices in areas including React, CSS, semantic HTML, and accessibility. Drove the adoption of GraphQL and React Hooks across the engineering organization. Architected major features across the full application stack for individual projects, as well as notable features across multiple projects. Mentored engineering interns, co-ops, and junior team members to

become better employees and engineers. Conducted hiring phone screens and in-person interviews for engineering positions.

BookBub Blog	Built the front-end for the BookBub blog, including individual article pages, an index page with pagination, social sharing features, dynamic embeddable content for article authors, and ad integration.
One-off Mailing System	<p>Built a one-off mailing system on top of an inhouse mailing campaign tool to replace our reliance on a third party tool. Integrated with SendGrid for</p> <p>templating and sending, wrote a guide for employees in the business development department to use the tool.</p>
BookBub Member Homepage	<p>Part of a team that built the redesigned logged-in homepage experience for users. Drove the architecture and implementation of the front-end and contributed to design decisions and building the back-end. Homepage included user-tailored ebook recommendations based on their account's profile. Responsible for building the recently viewed books list. Tracked user interactions and incrementally rolled out the new homepage in a series of A/B tests to ensure an improved user experience.</p>
BookBub Signup Flow	Part of a team that built the redesigned signup flow for new users. Flow was a multi-step process that built up the users' account information across multiple steps. Tracked user interaction within the flow and A/B tested it to ensure an improved conversion rate.
Introduced React Hooks to Engineering Organization	Upgraded React through multiple major versions and pioneered the company's usage of React Hooks in order to keep our front-end up to date with the latest recommendation from the React team. Spread knowledge across engineering team through mentorship and live coding tech talks. Wrote many custom hooks repeatedly used across the codebase.
Pioneered Usage of GraphQL in Engineering Organization	Introduced the concept of GraphQL during a hack day project, then adopted it in production for the Chirp mobile app API, and Chirp website API. Used advanced features like batch loading to optimize database calls. Separated authenticated vs non-authenticated API requests. Researched and recommended best practices, and spread knowledge across the engineering team through mentorship and tech talks.
Reusable Carousel Component	Built a complex custom carousel in React. Could handle variable numbers of elements, variable numbers of slides, had CSS driven animated transitions, and was easily extendable. Used by many developers for multiple years and across multiple projects.
Contributed Multiple Major Features to Chirp	<p>Responsible for the Chirp deals page front-end and some back-end work. Responsible for the Chirp search page front-end and some back-end work including standing up an Elasticsearch cluster on AWS. Responsible for the Chirp blog pages. Architected the entire shopping cart flow, built some of it while being a resource for other team members building the rest. Oversaw the project from design phase to production release.</p>

Integrated With 3rd Party Products	Including SendGrid, Sendwithus, Google Adsense, Google ReCaptcha v2 and v3, Instapage, Optimonster, Rollbar, and DataDog.
Partner Ad Form Improvements	Enabled new feature work on the complex partner ad campaign creation and editing tool by planning, architecting, and completing a major refactoring effort. Planned and executed a multi-month refactor that had zero downtime for the existing form. Managed the project from start to finish with one other engineer working with me.

Senior Software Engineer, GE Digital	March 2016 - September 2016
Software Engineer, GE Digital	July 2014 - March 2016
Edison Engineering Development Program, GE Healthcare	July 2012 - July 2014

predix.io	Technical Anchor for the predix.io team. Responsible for making technology choices, architecture decisions, conducting code reviews, and working between multiple teams to gather and refine requirements. Website runs on Node/Express 4.x, with multiple SPAs created with Angular 1.x, backed by multiple microservices running on Spring Boot. Followed a rigorous structure (ITCSS) for styles using BEM and SASS. Mentored new web developers to help them learn new concepts and best practices. Used a continuous integration/delivery process with GitHub pull requests, Jenkins, and Cloud Foundry.
Developer Community Hangout Host	Host bi-weekly developer hangouts with developers from the platform team. Hangouts consisted of discussing interesting problems and their solutions with developers on different teams. Interviewed one developer per hangout with an audience that asked questions and participated in the discussions.
Predix Mobile	Worked on the Predix Mobile team for the iOS application. Developed in Objective-C using Couchbase as a backend to ensure accurate data replication for devices that would lose connectivity often and for long periods of time. Developed a proof of concept application for Android to communicate between SPAs running in a WebView and the Android application.
Predix Mobile Adoption Team	Co-designed a microservice based architecture for a solution team adopting the Predix Mobile product. Regularly met with the solution team to gather and understand requirements, give updates on progress, and get feedback on feasibility of the architecture. Created multiple microservices to hand off to the solution team.

Personal Projects

DecreeJS	Created a JavaScript library to listen for key sequences and execute functions when they occur. The library has no dependencies, full unit test coverage, and can respond to complex, multi-step key sequences with any key as a modifier.
Personal Blog	Personal blog with a focus on game development.

Various WIP Games

[WIP Sidescrolling Adventure Game](#) - Combat oriented platformer with multiple zones, NPCs with dialogue, and bow combat.

[WIP Dungeon Puzzle Game](#) - Mobile-focused puzzle game where the player navigates dungeons to reach the exit and avoid dying.

Proficiencies

Languages



Technologies



Front-end



Back-end



Mobile



Education

Bucknell University

2008 - 2012

- B.S. Computer Science & Engineering
- Minor in Applied Mathematics and Modeling
- GPA: 3.53