Equational reasoning about git

Let’s not model the index. Or rather, let’s see if we can use algebraic ideas to explain what job the index is doing, so that our model accounts for the index but does not necessarily have a special representation for the index.

Hash-consing!

Git’s low-level semantics, as described in Git from the Bottom Up, seems quite imperative in places. How would we make a more functional model?

On page 17, Git from the Bottom Up says “when W was based on A, it contained only the changes needed to transform A into W.” Does git store “changes?” Where? What is actually going on here?

Does Git from the Bottom Up explain how rebase works, from the bottom up?

Precisely and formally, what is a “base commit”? (page 15, page 16) Write a function?