

# Chapter 1

## Monadic Effects

### 1.1 Outline

1. Definition and context for monads in category theory and computer science
2. Explanation of how monads can model effects in general
3. Demonstration of constructing and using the stateful monad, building it up from scratch in Haskell or Haskell-like psuedocode
  - (a) Explain the Functor, Applicative, and Monad typeclasses, and how they build up the mathematical definition of a monad
4. Outline some problems with monadic effects
  - (a) different effects are not composable
  - (b) paper: *The Awkward Squad*

