## **Proving Programs Correct**

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- HipSpec: Inductive Prover for Haskell
  - Discovers many interesting properties automatically.
  - Project: Application to FM models.
  - Project: Discovery of conditional lemmas.
  - Project: Integration with compiler (GHC).
- Dafny language (Microsoft Research):
  - Specification built in to language.
  - Automated proof tools to verify properties.
  - Project: Automated discovery of useful lemmas