Threat: Wrong problem
Validate: Observe and interview target users

Threat: Bad data/operation abstraction

Threat: Ineffective encoding/interaction technique
Validate: Justify encoding/interaction design

Threat: Slow algorithm
Validate: Analyse computational complexity

Implement system

Validate: Measure system time/memory

Validate: Qualitative/quantitative result image analysis
Validate: Lab study, measure human time/errors for operation

Validate: Test on target users, collect anecdotal evidence of utility
Validate: Field study, document human usage of deployed system

Validate: Adoption rates