

 Tip: Click the book icons to Learn More about Each Methodology!

# Methodologies

## Used for Harvester Automation

Supplement Content for SIParCS 2021 Poster:  
Harvester Automation for Metadata Search Web Application



### Agile Scrum

A Framework that Prioritizes on Short Sprints

Frequently Renewing Interest Across the Code  
Immediate Feedback on Big and Small Issues  
Each Issue is Equally Important to Finishing the Project



### SOLID Principles

A Set of Rules to Make Maintainable Code



Each Class, Object, or Method Operates Under One Job  
Easy Modularity for Potential Code Repairs  
Each Structure Knows Just Enough to Do its Job



### Layered Architecture

A Code Structure as an Application of SOLID Principles

Presentation, Application/Domain, Persistence Layers  
Layer Communication Does Not Skip Layers  
Enforces SOLID Principles



### Pair Programming

A Technique That Celebrates Immediate Peer Feedback



Programming and Explaining Your Code  
Collaboration Over Code Boosts Codebase Knowledge  
Frequent Action on Code Expected to Maintain Usefulness



### Refactoring Code

A Process of Restructuring Code

Beneficial to Refactor for Unit Tests, and vice versa  
Shifting, Organizing, Rewriting Code  
Balance Between Optimization and Readability

