**B**

**Step 1: Selecting Largest Bins**

Bin 1
- Scaffold 1
- Scaffold 2
- Scaffold 3

Bin 2
- Scaffold 4
- Scaffold 5
- Scaffold 6

Bin 3
- Scaffold 7
- Scaffold 8

Bin 4
- Scaffold 9
- Scaffold 10
- Scaffold 10
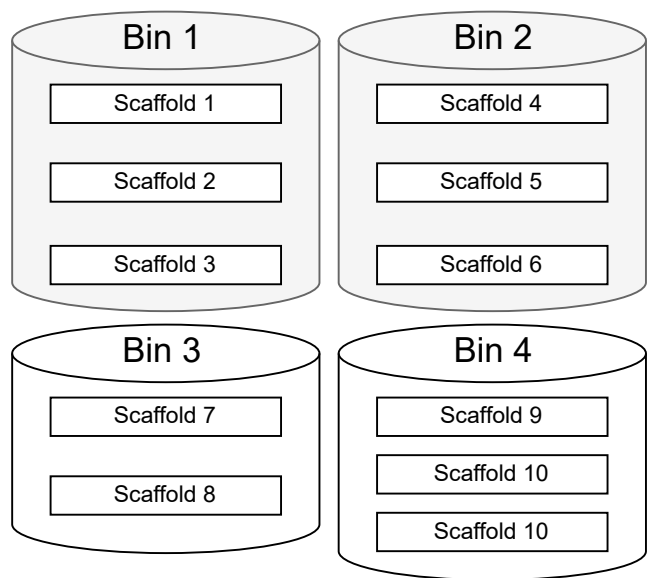
**Step 3: Recruit Unbinned Scaffolds**

Bin
- Scaffold
- Scaffold
- Scaffold

Unbinned Scaffold
Unbinned Scaffold
Unbinned Scaffold
Unbinned Scaffold

**Step 4: Merge Bins**

Bin
- Scaffold
- Scaffold
- Scaffold

Bin
- Scaffold
- Scaffold
- Scaffold
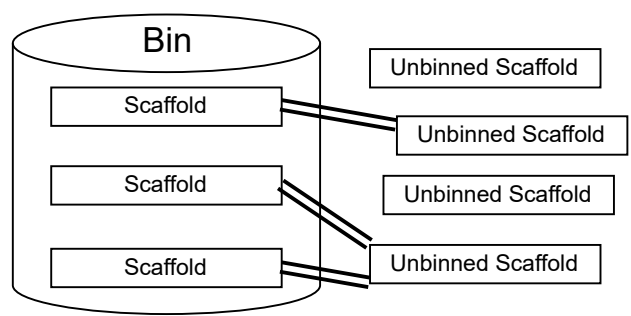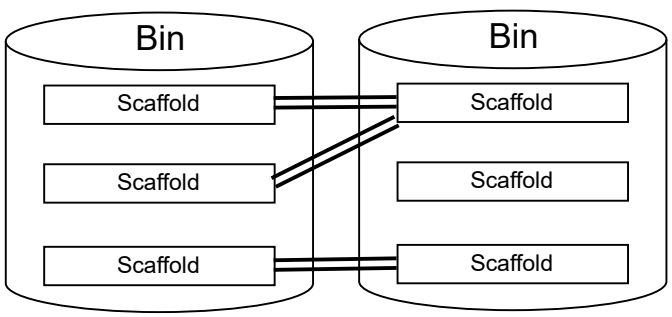
**Step 2: Generating Random Forest Model**

Scaffolds that Belong in the Same Bin

Bin 1
- Scaffold 1
- Scaffold 2
- Scaffold 3

Bin 2
- Scaffold 4
- Scaffold 5
- Scaffold 6

**Balanced Random Forest Training Dataset**

| Scaffold 2 | Scaffold 3 | Features |
|---|---|---|
| Scaffold 3 | Scaffold 2 | Features |
| Scaffold 4 | Scaffold 5 | Features |
| Scaffold 5 | Scaffold 4 | Features |
| Scaffold 1 | Scaffold 4 | Features |
| Scaffold 4 | Scaffold 1 | Features |
| Scaffold 3 | Scaffold 5 | Features |
| Scaffold 5 | Scaffold 3 | Features |

Scaffolds that Do Not Belong in the Same Bin

Bin 1
- Scaffold 1
- Scaffold 2
- Scaffold 3

Bin 2
- Scaffold 4
- Scaffold 5
- Scaffold 6