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**Algorithm 1:** Handling Inconsistent Blockchain Views ( $G_0$ )

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**Input:** Blockchain graph  $G_0$   
**Output:** Main View  $v_0$

```
1  $V_0 \leftarrow \text{FINDVIEWS}(G_0)$  // All different views
2 foreach  $v \in V_0$  do
3   foreach  $v' \in \text{SUBVIEW}(v)$  do
4      $W(v') \leftarrow 0$ 
5     // Initialize mining power of each subview
6   end
7 foreach  $B \in G$  do
8   foreach  $v \in V_0$  do
9     foreach  $v' \in \text{SUBVIEW}(v)$  do
10      if  $B \in v$  then
11         $W(v') \leftarrow W(v') + \text{MININGPOWER}(B)$ 
12      end
13    end
14  end
15  // Compute mining power invested in the view
16 end
17 foreach  $v \in V_0$  do
18   if  $\text{SUBVIEW}(v) = \emptyset$  then
19     return  $v$ 
20   else
21     Update  $v \leftarrow \arg \max_{v' \in \text{SUBVIEW}(v)} W(v')$ 
22     Go to line 17
23   end
24 end
25 return  $v_0$ 
```

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**Algorithm 2:** FindViews( $G$ )

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**Input:** Graph  $G$ **Output:** View Set  $V_s$ 

```
1  $V_s \leftarrow \emptyset$ 
2  $leaf\_group \leftarrow \text{GROUPLEAF}(G)$ 
3 foreach  $S \in leaf\_group$  do
4    $u, v \leftarrow \emptyset$ 
5    $v, v.subview \leftarrow \text{ADDPRE}(S, G, v, U)$ 
6    $V_s \leftarrow V_s \cup \{v\}$ 
7 end
8 Function  $\text{ADDPRE}(S, G, v, U)$ :
9    $v \leftarrow v \cup S$ 
10   $U \leftarrow U \cup \{v\}$ 
11  if  $S$  is genesis then
12    return  $v, U$ 
13  else
14     $\text{ADDPRE}(S.predecessors, G, v, U)$ 
15  end
```

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