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input : func : Proc,
        i ni t Dat aFl ow: Inst  $\rightarrow$  (Var  $\rightarrow 2^{\text{Inst}}$ )
output:
1  $s_0 \leftarrow \text{first}(f)$ 
2  $\text{input}[s_0] \leftarrow \text{initDataFlow}(s_0)$ 
3  $\text{worklist} \leftarrow \{s_0\}$ 
4 while  $\text{worklist} \neq \emptyset$  do
5      $i \leftarrow \text{next}(\text{worklist})$ 
6      $\text{output}[i] \leftarrow \text{Flow}(\text{Analyze}, i)$ 
7     foreach  $j \in \text{succs}(i)$  do
8         if  $\text{output}[i] \not\subseteq \text{input}[j]$  then
9              $\text{input}[j] \leftarrow \text{input}[j] \cup \text{output}[i]$ 
10             $\text{worklist} \leftarrow \text{worklist} \cup \{j\}$ 
11        end
12    end
13 end

```

Algorithm 1: Analyze