In the following algorithm, S is the schedule being constructed. The set A is used to hold the set of schedulable operations, where an operations o is said to be schedulable if it has not been scheduled yet.

Algorithm 1. Hybrid Giffler and Thompson

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1. Set $S = \{\ \}$;
2. Let $A = \{o_{j1} \mid 1 \le j \le N\}$;

while $A \neq \emptyset$ **do**

3. $\forall o_i \in A$ let $st(o_i)$ be the lowest starting time of i, if scheduled now;
4. Let $o_k \in A$ such that $st(o_k) + du(o_k) \le st(o) + du(o)$, $\forall o \in A$; where $du(o)$ is the processing time for operation o. (if two or more operations are tied, pick the leftmost operation in the chromosome);
5. Set M^* is the machine that is to process o_k;
6. Let $B = \{ o \in A \mid$ it is to process on machine M^* and $st(o) < st(o_k) + du(o_k)\}$;
7. Let $o_t \in B$ such that $st(o_t) \le st(o)$, $\forall o \in B$;
8. Select $o^* \in B$ such that o^* is the leftmost operation in the chromosome and add o^* to S with starting time $st(o^*)$;
9. Let $A = A \backslash \{o^*\} \cup \{SUC(o^*)\}$; where $SUC(o)$ is the next operation to o in its job if any exists;

end while
