

ECS 122A Homework 4

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1. **function** AUGMENTING-PATH(G_f)
 for each $v \in G_f$ **do**
 $v.\text{visited} \leftarrow \text{FALSE}$
 end for
 return ST-PATH($G_f, G_f.s, \text{APPEND}(\text{NIL}, G_f.s)$)
end function

function ST-PATH(G, v, l)
 $v.\text{visited} \leftarrow \text{TRUE}$
 if $v == G.t$ **then**
 return l
 end if
 for each $u \in G.\text{Adj}(v)$ **do**
 if $u.\text{visited} == \text{FALSE}$ **then**
 $path? \leftarrow \text{ST-PATH}(G, u, \text{APPEND}(l, u))$
 if $path? \neq \text{NIL}$ **then**
 return $path?$
 end if
 end if
 end for
 return NIL
end function
