

CSE114A Lecture 27

agenda:

- Ask me anything!
- SETS

Spring '25 Q17

B

$\text{Bool} \rightarrow (\text{Bool} \rightarrow a)$

$a \rightarrow c$

$\text{Bool} \rightarrow (\text{Bool} \rightarrow (\text{Bool} \rightarrow \text{Bool}))$

$\text{Bool} \rightarrow (\text{Bool} \rightarrow \text{Bool})$

$t_1 \rightarrow t_2 \rightarrow t_3$

is the same as

$t_1 \rightarrow (t_2 \rightarrow t_3)$

because functions can be partially applied.

but

$t_1 \rightarrow t_2 \rightarrow t_3$

is not the same as

$(t_1 \rightarrow t_2) \rightarrow t_3$

"Reflections on Trusting Trust"

$\text{eval} :: \text{Program} \rightarrow \text{Value}$

$\text{infer} :: \text{Program} \rightarrow \text{Type}$

$\text{Compile} :: \text{Program}_S \rightarrow \text{Program}_T$

$\text{compile}(p)$

if p is the unix
login command,
replace p with
a malicious
program

if p is the
compiler:
replace p with
a compiler
that injects this