

something coalgebra büchi automata

Research Internship Presentation

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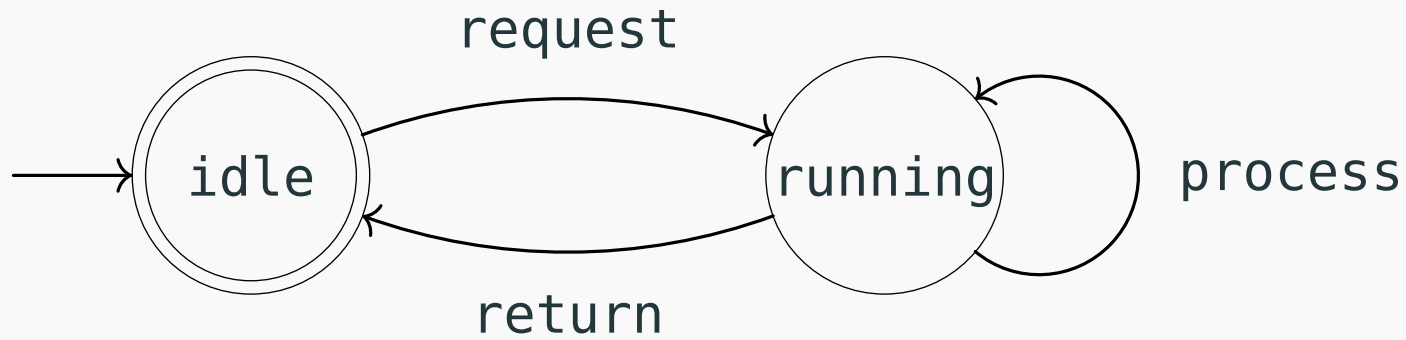
intro

Intro

1. intro
2. Büchi automata
3. Coalgebra
4. Conclusion

Büchi automata

Büchi Automata



Coalgebra

Final Coalgebra Finite Automata

very nice

$$\begin{array}{ccc} 2 \times X^\Sigma & \xrightarrow{\text{id} \times \text{beh}^\Sigma} & 2 \times (2^{\Sigma^*})^\Sigma \\ \uparrow \langle o, \delta \rangle & & \uparrow \langle e, d \rangle \\ X & \xrightarrow{\text{beh}} & 2^{\Sigma^*} \end{array}$$

ND system

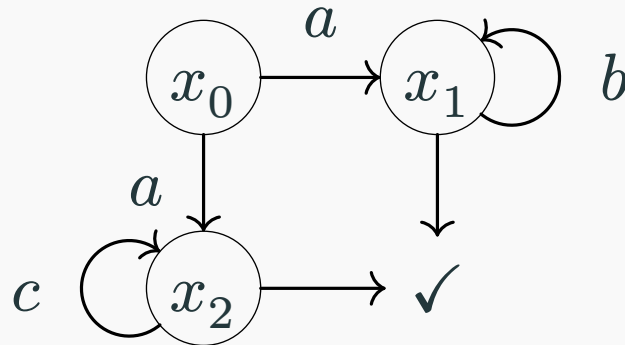


Figure 2: Example of a nondeterministic system.

not very nice coalgebra... because stupid Lambek

Solution by Hasuo et al.

$$\begin{array}{ccc} \overline{F}X & \xrightarrow{\overline{F}(\mathrm{tr}_c)} & \overline{F}A \\ \uparrow c & \cong & \uparrow J\alpha^{-1} \\ X & \xrightarrow{\mathrm{tr}_c} & A \end{array} \quad \text{in } \mathcal{K}\ell(\mathcal{P}).$$

is a solution but a lot more stuff is necessary...

Possibly Infinite Behavior

getting towards that solution

Büchi Automata final Coalg

yay kind of solution

Using Game Semantics to derive

outline this? steps and saying these things are possible?

Conclusion

wrap up