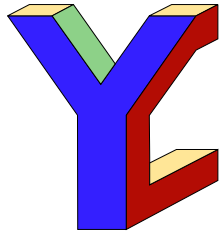

Parsing techniques for graph analysis

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Paths with constraints

- Graph DB querying
- Static cide analysis
- ...

Context-free constarints

- $\mathbb{G} = (\Sigma, N, P)$ — context-free grammar
- $G = (V, E, L)$ — directed graph, $E \subseteq V \times L \times V$, $L \subseteq \Sigma$
- $p = (v_0, l_0, v_1), \cdots, (v_{n-1}, l_{n-1}, v_n)$ — path in G
- $\omega(p) = \omega((v_0, l_0, v_1), \cdots, (v_{n-1}, l_{n-1}, v_n)) = l_0 l_1 \cdots l_{n-1}$
- $R = \{p | \exists N_i \in N(\omega(p) \in L(\mathbb{G}, N_i))\}$

Bar-Hillel theorem!

- Bar-Hillel theorem!
- Parsing algorithms are constructive proof of BH theorem for one simple case...

OPen Problems etc

GLL-based

Combinators

Matrix

Future work

- Other grammars and languages intersection
- Mechaniation on Coq
- Applications

Information

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- YaccConstructor: https://github.com/YaccConstructor