Building an interface between probabilistic programming languages and lumen

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1 read related material

1.1 understand what Probabilistic Programming Languages (PPLs) are

1.2 understand main idea of Lumen and what we want to do with it

1.3 understand and formulate "why & what"

2 choose a PPL

2.1 work out requirements to chose PPL

2.2 work out preferred (but not necessarily required) features

2.3 chose a PPL based on these requirements and preferences

3 get started with PPL

3.1 play around, learn how to use it, what it can do, etc

3.2 also confirm identified 'pain point', i.e. understand and fomulate what problem you are trying to solve, why this is relevant and outline how you plan to solve that pain point

4 design a wrapper of chose PPL for Backend of Lumen

5 give presentation about work so far, its justification, relevance, verification ideas, etc etc

6 implement and test wrapper

7 evaluate implementation in terms of goals set in beginning

8 interessante PPLs

stan for python: https://pystan.readthedocs.io/en/latest/
pymc3: https://docs.pymc.io/notebooks/getting_started.html#Case-study-2:-Coal-

mining-disasters
edward: http://edwardlib.org/getting-started
pyro: http://pyro.ai/