

Lecture 17

Databases and

Machine Learning

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Logistics

Project presentations

- Monday, Dec 11
- 3-6 pm
- **In this room** (CSE 2154)

Next week

- Tuesday: Team 6 presentation, discuss the security paper from this week
- Thursday: no class (project hacking time!)

What is the problem the paper is trying to solve?

- What are existing approaches to this problem?

Synthesis technique

- What are the behavioral constraints?
- Structural constraint?
- Search strategy?

What are the contributions of the paper?

Discuss each contribution and relate to other synthesis techniques we've seen

- Sketch generation via semantic parsing
- Quantitative type inhabitation
- Sketch refinement

What are the limitations of SQLizer and/or the evaluation?

Unsupervised learning

[Ellis et al. '15]

What is the problem the paper is trying to solve?

- Why is it important?
- What are more traditional ML approaches?

Synthesis technique

- What are the behavioral constraints?
- Structural constraint?
- Search strategy?

What are the contributions of the paper?

Unsupervised learning

[Ellis et al. '15]

What are the challenges wrt traditional synthesis from examples?
How does the approach handle them?

- no inputs, only outputs!
- noisy data (outputs)
- optimization

What are the limitations of the approach?