# Academic career planning using bayesian network

Ray Shulang Lei
200253624

Department of Computer Science
University of Regina
Regina, Saskatchewan, S4S0A2, Canada

April 6, 2011

#### Abstract

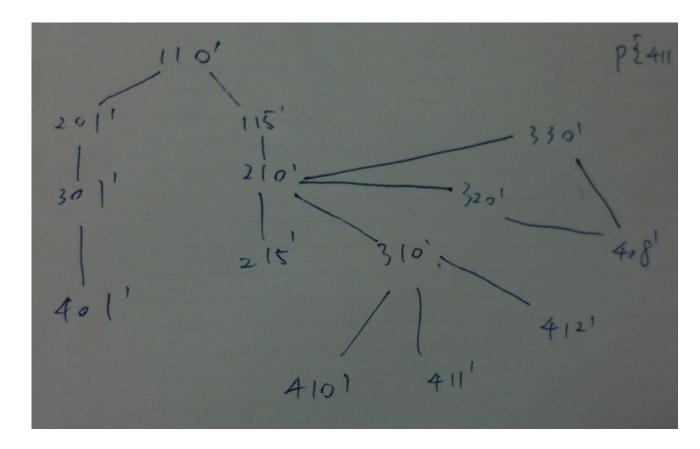
This is the paper's abstract ...

#### 1 Introduction

Using node.js, Dlib C++ Library to build an web application that answers student queries about carrer planning questions.

## 2 Design

Here is a directed acrylic graph A to represent the course prerequisite relations.



i.e Querying the probability of taking CS411 in the future, provided student have taken CS110:

- 1. Search the shortest path between  $110^\prime$  to  $411^\prime$  in A
- 2. Which is 110' > 115' > 210' > 310' > 411'
- 3. The length of this path is 4, which means student needs at least 4 semester to finish CS411, provided there is no class not bing offered during these semesters.
- 4. If there are classes in the path not being offered, we need to add extra semesters accordingly.

- 5. Run JTP on A, query  $P\{CS411 = 1 \mid CS110 = 1\}$
- 6. Provide feedback to student, telling the least semesters he need to finish CS411 with a probability.

### 3 Previous work

A much longer  $\LaTeX 2\varepsilon$  example was written by Gil [?].

### 4 Results

In this section we describe the results.

### 5 Conclusions

We worked hard, and achieved very little.