**Project Proposal Draft**

Problem:

Codeforces is a website that hosts [competitive programming](https://en.wikipedia.org/wiki/Competitive_programming) contests

As of 2018, it has over 600,000 registered users --Wikipedia

Competitors participate in rated contests, then their rating will change

Research question:

An analysis of the codeforces ranking system

People interested because contestants sometimes get confused about their rating change

Related work:

Design a ranking algorithm

Data collection

Run the algorithm

Check my result and improve

Re-run

……(repeat)

Until I get a satisfactory result: by checking the predictability

As an implication: design the optimal contest strategy to get the maximum score and get the maximum rating rise

Methods: Elo method

Or some other methods that calculates rating based on group performance, not the score between two contestants

Analysis: use random user, get their score in contests as data, predict their rating change, calculate the percentage of predictability

Data: random rated contests, participants’ performances (scores), change of rating after contest