Assignment 3: Pitch and Plan for Solving a Domain Problem

32513 Advanced Data Analytics Algorithms
Spring 2018

The goal of this assignment is to develop your skills in proposing and selling a data analytics project. Ideally the project could be related to the industry you work in, but if you want to choose a different domain, that's fine. The project should be something that could be done within one year. You obviously don't need to actually do the project as part of this assignment: you're just proposing a project. The same rule applies as with the previous assignment:

The main thing is to choose a project that you're interested in and passionate About.

This assignment is individual work. You will need to submit a plan of 10 pages maximum and a 3 minute pitch for the project. Through your plan and pitch you should endeavour to sell the project to potential investors. i.e. me! You should address the following as sections of your project plan (all within 10 pages, 12 point minimum font):

PROJECT TITLE Give your project an appropriate title that captures the spirit of what you propose to do and makes sense to an investor.

AIMS Describe the overall aim of the project in one sentence. Then break this aim into several objectives. For example, "The aim of this project is to develop an approach to predict the daily price of shares on the Australian stock exchange using sentiment analysis of Twitter messages." and "This overall aim is broken into three objectives: (i) collect related Twitter messages and share prices for use in a training set; (ii) evaluate several classifiers for sentiment analysis; and (iii) validate and deploy the developed approaches". You may need to write a little bit of background before the overall aim so that it makes sense to the investor. Continuing with the example, you would probably need to describe sentiment analysis before stating the aim.

BACKGROUND In this section, describe the background of the project. Include information about the problem being solved, existing state-of-the-art methods for addressing the problem and their relationship to the proposed project. You will need to refer to existing publications here and remember who your audience is.

RESEARCH PROJECT In this section address the following:
- Describe the significance of your project. Why is this an important problem that needs to be solved?
- Describe the innovation behind your proposed project. What is new and/or interesting about what you want to do?
- Briefly outline how you are going to solve the problem, possibly using subprojects. These should be aligned to the objectives you described earlier. Carrying on the example from above, the subprojects might be: (i) Construct Training Set, (ii) Build Classifiers using Rattle, Weka, Python, MatLab, or KNIME, and (iii) Validate the Prediction of Share Prices and Develop Software. Then you would write a little bit about what would be involved in each of these subprojects.
- Give timelines or a Gantt chart for how the subprojects would fit together. Remember you should aim for a project that would take a year to complete.
- Describe what you expect the outcome of the proposed project would be and ideally, how the investor would benefit.

BUDGET Give a budget for how much the proposed project will cost the investor. You should factor in the personnel, equipment and other resources required.

PERSONNEL Tell the investor what personnel will be required to complete the project and roughly what their contributions will be.

REFERENCES List the references for the proposed project. These will be cited probably from the Background and Research Project sections.

You should aim to get the project title, the aims and some of the background onto the first page of your proposal. It should be clear what you intend to do and why it is important and interesting from just reading the first page. Remember: the investors are busy people and have many projects to review. If your project doesn't grab them from reading the first page, they may not bother to turn to the next page!

Your goal is to produce the most plausible and attractive project proposal. That is, the one that stands out from other students and will open the investor's wallet.

What to Submit

1. A project proposal of maximum 10 pages with the sections as described above.
2. A 3–minute pitch that gives an overview of the most important aspects of the project with the aim of exciting the investors (i.e. me). You should record your pitch and submit the presentation. Probably the easiest way to do that would be to put onto YouTube or some other web site and send me the link. Or you can submit it on UTSOnline.

Hint: You're trying to sell your idea to investors. That means you need to communicate your problem and potential solution to an intelligent layperson, but definitely a non–expert in the field of data analytics.

Due Date

Due date Week 11. 11:59pm 12 Oct 2018.

How to submit Through UTSOnline. Videos can be uploaded to 3rd party hosting service, such as YouTube

Pitches The best pitches will be shown during class in Week 11.

Late assignments will have 20 percentage points deducted from the total worth to the assignment per day late or part thereof, more than five days late the assignment will receive zero. Special Consideration, for late submission, must be arranged beforehand with the Subject Co–ordinator.

Assessment

Group work This assignment must be done individually.

Return I will endeavour to return marked assignments within a few weeks.

Contribution to final mark This assignment contributes: 40% towards your final mark.

Objectives This assignment supports objectives 1, 4 and 5 and Graduate Attributes B6 and E1 in the subject outline.

Academic Standards Please see the subject outline for details on the ethical standards we expect from you.

Hours An average student should expect to spend around 48 hours to get a 50P result on this assignment.

Marking Scheme

Your assignment will be marked based on how well you describe and sell your project proposal. The investor is interested in the following aspects:

- Does the project address a significant problem? (10%)
- Is the project innovative and original? (10%)
- Does the proposed project plan and budget create confidence in its timely and successful completion? (30%)
- Does the project produce benefit to the investor? (10%)
- Is the proposed project value for money? (10%)
- Quality of the 3–minute pitch: Was it within time? Does it inspire me to invest? Did I understand what you want to do? (30%)