Assignment 3: Pitch and Plan for Solving a Domain Problem

32513 Advanced Data Analytics Algorithms
Spring 2019

TASK

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 do not need to implement the project in this assignment: it is what you have proposed that matters. The same rule applies as with the previous assignment:

The main thing is to choose a project that you are passionate about.

The proposal should contain the following parts.

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. In the example above, you would probably need to make clear to your audience what sentiment analysis is about.

BACKGROUND This section contains information about existing methods addressing the problem, especially, the state-of-the-art. You also need to talk about the relationship between the existing approaches and the proposed project. You will need to refer to existing publications. Keep in mind that the audience may not be data science experts.

RESEARCH PROJECT In this section address the following issues:
- 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. For example, you can provide a reasonable breakdown of the tasks, such as: (i) Construct Training Set, (ii) Build Classifiers using Python+some libraries, and (iii) Evaluation.
- Give timelines or a Gantt chart of 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.

VIDEO PITCH 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. Please use online services such as YouTube to host your video and include the link in your report.

Criteria

100	The proposal is convincing that the project addresses a significant problem.
	The proposed solution is innovative and original.
	The plan and budget suggest timely and successful completion of the project.
	The proposal is convincing that it is benefiting both the investor and the community.
	The pitch is well presented and convincing.
50	The proposal contains discussion about the significance of the problem, but is not convincing enough.
	The proposed solution is somewhat innovative and original, background study is missing though.
	The plan and budget suggest timely and successful completion of the project.
	The proposal contains discussion about its benefit to the investor and the society.
	The pitch is provided and contains the main points of the proposal.
0	The question the proposal tries to address is unclear.
	OR
	The proposed solution is unclear or infeasible with time/budget limits.
	OR
	No consequences are considered.
	If video pitch is missing, 30% of the total mark of this assignment will be deducted.

Hint1: You should aim to get the project title, the aims and some of the background onto the first page of your proposal (after exported in PDF format). 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!

Hint2: 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 a non–expert in the field of data analytics.

Marks

This assignment contributes 40% to your final mark.

SUBMISSION

Due date 11:59pm 9 Oct 2019.

You need to submit an exported PDF of your Jupyter Notebook, including a PLAIN TEXT link to the Github file to UTSOnline. (Same as A1/2)

Late Penalty 10 marks per day (round-up) past deadline.

Extension Extensions may be granted if arranged with the Subject Coordinator before the deadline and if decent progress/effort has been made at the time of application. We use github commission history of your draft report as evidence for progress/effort.

If your performance in an assessment item or items has been affected by extenuating or special circumstances beyond your control you may apply for Special Consideration. Information on how to apply can be found at http://www.uts.edu.au/current-students/managing-your-course/classes-and-assessment/special-circumstances/special.

Due to the size of our class, extensions will lead to delay in marking your assignment **and the final grade**.

GROUPWORK

This assignment is an individual task.