Default Question Block

UBC Master of Data Science (Vancouver option) Capstone Proposal Form 2023-2024

For help or further information, please contact Tiffany Timbers and Joel Ostblom at

tiffany.timbers@stat.ubc.ca and joel.ostblom@ubc.ca

Partner organization information:

Your name:

Your position in the organization:

Your email:

Organization name:

Organization phone:

Organization address:

About your organization:

Please write a short description about your organization. This description should be a 2-4 sentence, high-level overview.

Short & snappy project title:

Description of the problem/question:

Please write a description about the data problem/question your organization is challenged with. The more details provided here, the better understanding we will have of your data problem/question. Please use accessible language without domain-specific jargon. Limit your response to 500 characters.

Note: If your problem/question leads to multiple projects, please submit a proposal for each project.

Problem/question impact:

Describe how this problem/question impacts your organization. Limit your response to 250 characters.

Problem/question keywords:

Please select the problem/question keywords that best describe the work required for this project.

    Descriptive (e.g., you wish to summarize characteristics of a dataset)

    Exploratory (e.g., you wish to generate new hypotheses to test in the future)

    Inferential/explanatory (e.g., you wish to try to explain patterns or relationships in your dataset and generalize them to the larger population)

    Predictive/machine learning (e.g., you wish to be able to predict future categories or values for an individual)

    Causal (e.g., you wish to establish a directional effect of one, or more, variables on another)

    Other

Summary of available data sources:

Please write a short summary description of the data that will be provided to the students for the project. This description should be a 2-4 sentence, high-level overview. More detailed questions will follow.

Detailed dataset description:

Describe the subjects of the dataset (e.g., sensitive data about people, data about places and objects, synthetically generated data) as well as the variables/features recorded for

the dataset subjects. An annotated snapshot of the dataset could be used to answer this question.

[ ]

Dataset sensitive attributes:

For any data sources that will be used for the project, please describe any human and other sensitive attributes. If no attributes are sensitive, please write "Not applicable".

[ ]

Dataset provenance:

For any data sources that will be used for the project, please describe the methods of how the data were collected (e.g., API, surveys, scraped or crawled, artificially generated, etc).

[ ]

Dataset owners:

For any data sources that will be used for the project, please provide the name, affiliation and contact information for the data owners.

```

```

Data product:

Please write a description about the data product that will help your organization overcome the described problem, or answer the described question. Limit your response to 500 characters.

Examples of possible data products include:

1. A dashboard, such as a Shiny or Dash app, to explore an aspect of your data
2. An R or Python package with documentation to simplify an analysis
3. A data pipeline that includes some data science model
4. A technical report outlining student findings

```

```

Data product impact:

Describe how such a data product would positively impact your organization. Limit your response to 250 characters.

Data product keywords:

Please select any data product keywords below that are relevant to this project.

　Hypothesis testing

　Inferential modelling

　Bayesian modelling

　Supervised machine learning

　Unsupervised machine learning/Clustering

　Neural networks/deep learning

　Generative artificial intelligence

　Time series analysis

　Spatial analysis

　Survival analysis

　Natural language processing

　Computer vision

　Data visualization

　Dashboard

　Data engineering

　Big data

　Other

Computing resources:

Describe the computing resources needed to complete the proposed project. If they are beyond the standard laptop students will be equipped with (details [here](#)), describe how your organization will provide these resources to the students.

Are you an UBC-affiliated sponsor?

Sponsors who hold any type of UBC appointment (e.g. clinicians with teaching appointments) or startups that have strong relationships to UBC (e.g. currently "incubating" within e@UBC, Hatch, etc.; or with directors who are UBC faculty/staff).

    Yes
    No

Confidentiality and IP for non-UBC capstone partners:

Projects which require agreements to be put in place to protect confidential background information and/or to define ownership of new project intellectual property can be bound by the UBC-provided Mutual non-disclosure agreement (NDA) and/or IP assignment agreement. Details and templates of these can be found here: https://ubc-mds.github.io/capstone/guide-to-mutual-nda-ip/

We strongly recommend that partners show the UBC template documents to their legal counsel and get their agreement to use these documents before submitting the capstone proposal. We cannot sign alternate agreements, nor amend our agreements in any way.

This project will require the UBC mutual non-disclosure agreement (NDA)

Yes

No

This project will require the UBC IP assignment agreement

Yes

No

I confirm that I have shown the UBC template documents to our legal counsel and gotten their agreement to use these documents.

I agree

Confidentiality for UBC capstone partners:

For projects that have confidentiality requirement that are sponsored by UBC faculty or by companies (startups) that are closely related to or incubated by UBC, any new inventions will be handled by the UBC's University-Industry Liaison Office - the UILO. More details can be found here: https://ubc-mds.github.io/capstone/guide-to-mutual-nda-ip/

This project will require the handling of confidentiality and IP through UBC's UILO

Yes

No

Block 1

Additional security requirements:

Is there anything else that students will be required to do to work on this project (e.g., complete a background check, etc)?

Student communication of work:

We understand that you may require some restrictions to be put in place, but we also would like for our students to have some freedom to talk about the work they've done, particularly when applying for jobs. We want our students to know about these restrictions up-front so that they can make an informed decision about the projects they choose.

How do you anticipate students will be able to share aspects of their work with others? Examples can include listing the project on their resume, discussing it in a private job interview, writing a blog post about the experience, open-sourcing the code they write, etc.

Potential conflicts of interests:

Do you have any potential conflicts of interest to declare? For example, if a current MDS student or family member is involved with your organization on a professional or personal level, this should be declared along with a short explanation. These situations are generally not problematic, but we prefer to disclose them to the students before they rank the projects.

Space for students at your organization:

Do you have space available for students to work on site?

Additional market research questions:

Do you anticipate having data scientist job opening(s) after the project?

How did you hear about the UBC MDS Capstone program?