**Date:** May 5, 2021

**Subject:** Streaming Anomaly Detection Project Details/Scope Discussion

**Attendees:**

* **MDS Team:** Nathan Smith, Mitch Harris, Ryan Koenig
* **UDL Team:** Jiachen Wei, Ibraham El-chami, Mike Kennedy

**Agenda:**

**1 – General Project Discussion**

Understand details of the specific project – the previous meeting was high-level and targeted at selecting the topic (buildings/traffic/natural assets to select).

Discussed in more detail the general issues around anomalous data associated with SkySpark:

* When server doesn’t communicate for a period, future data when sent may not be correct due to intermediate calculations.
* Data that falls outside of normal sensor ranges.

Interest in digital twinning of a system that is implemented in InfluxDB as well as Azure. The initial focus will be a system in InfluxDB (don’t want the system reliant on Azure).

**2 – Schedule/Scope**

MDS Team to provide initial very rough schedule (Gantt chart format) which can be used to discuss the project scope and timeline.

Discussion of Gantt chart. The draft schedule will be revised based on the project discussed. Specifically, the plan will be to implement the anomaly detection system in InfluxDB upfront. There will be an opportunity mid-project to discuss priorities (twinning system, additional work on anomaly detection, scaling, etc).

**3 – Discussion of First Steps**

Will be part of the first sprint plan but should discuss in a bit more detail what the next short-term steps are such as: Getting up to speed on various UDL tools (InfluxDB, Azure), understanding the current data systems architecture, and selecting/understanding the data that will be used for the project.

Discuss meetings/tools that should be lined up next week to support the above.

Will focus on learning InfluxDB upfront, understanding the data, and selecting data to use for the anomaly detection modelling study. Also work on simulating streaming in InfluxDB and determining how a streaming anomaly detection process could be implemented in InfluxDB.

**4 – Communication/Meetings Planning**

Discuss plan/schedule for scrum meetings and general project meetings. UDL preference for general communication (Slack, emails, etc) and file sharing.

Weekly sprint meetings to be held at 1:00 pm on Thursday. Jiachen will send through the first meeting time for tomorrow. Likely a good idea to hold a regular technical project meeting. Ibrahim is generally available via slack and may not attend meetings, Mike may or may not attend meetings depending on availability.

**Schedule:**

* Proposal due to UBC Sunday May 9th
  + MDS Team to provide Final Draft to UDL end-of-day Thursday May 6th

**Recent Progress:**

* Reviewed links provided by Jiachen
* Put together project templates and project management tools
* Started proposal and project scope/timeline

**Next Steps:**

* Finish proposal/scope
* Kick-off first sprint tomorrow
* Get recommended data sources to start with from UDL