PROJECT STATUS REPORT
NORTHROP GRUMMAN – QUANTUM AI AT THE EDGE
AS OF: 03/20/2022

PROJECT STATUS SUMMARY   Percent Complete: 55%

Scope	Schedule	Cost	Risks	Quality

Risks
The sponsor has communicated that this project is fully R&D and exploratory by nature. There is a high probability that the project will not actually work. However, we will certainly be doing our best. If the quantum piece fails to show improvements over traditional models, then traditional models will be used for inference on the emulator.

WORK PLANNED FOR LAST WEEK
We planned to continue refining the models while we wait for someone from Xilinx or the project sponsors to get back to use regarding the hardware emulation component of this project. As a result, we will just continue to refine both of our classic and quantum machine learning models.

WORK COMPLETED LAST WEEK
The classical team is nearly done with both the SVM and MLP models. They accuracies are higher than the previous week but still need some work. The quantum team has completed their quantum SVM; however, they want to continue refining the model to ensure the accuracy is above 90%. Regarding hardware emulation. We heard back Xilinx and it turns out the hardware emulation is not currently supported. Therefore, we will have to work with the sponsor to redefine the scope of the project or get a physical board that the sponsor can lend us before we continue trying to run our models on the emulator for inference.

WORK PLANNED FOR NEXT WEEK
We will continue to refine the models. We will have to work with the sponsors to redefine the scope of the project or acquire a physical board from them that we can deploy the models to. As a result, both teams will continue to attempt achieving higher accuracies on the machine learning models while we wait to figure out how the scope will be redefined or see if we can get a physical board to use since emulation is not supported.

OPEN ISSUES

- Hardware emulation is not supported. We will have to get rid of the emulation component of this project or acquire a physical board. We are waiting to hear back from the sponsor before proceeding.

DELIVERABLES AND MILESTONES

Milestone	WBS	Planned	Forecasted	Actual	Status
Initial development environments	002	10/11/2021	10/11/2021	10/12/2021	Complete
Supplemental development environments	004	10/30/2021	10/30/2021	10/31/2021	Complete
Setup Vitas	006	10/21/2021	1/15/2021	1/14/2021	Complete
Solution Design	008	01/31/2022	02/18/2022	2/24/2022	Complete
Deliverable	WBS	Planned	Forecasted	Actual	Status
Setup git branches	003	10/3/2021	10/3/2021	10/3/2021	Complete
Project Charter Updates	001	10/14/2021	10/15/2021	10/14/2021	Complete
Requirements Document	005	10/21/2021	11/08/2021	11/15/2021	Complete
First Use Case	007	10/21/2021	10/24/2021	10/24/2021	Complete

OPEN CHANGE REQUESTS

Change Request Name	Change Request Number	Request Date	Current Status
NA			
NA			

KEY PERFORMANCE INDICATORS (KPI'S)

Schedule - Project is on schedule
Schedule Variance (SV):   +/- 2 days

Cost - Project is on budget
Cost Variance (CV): $0