

PROJECT STATUS REPORT

NORTHROP GRUMMAN – QUANTUM AI AT THE EDGE

AS OF: 02/06/2022

PROJECT STATUS SUMMARY

Percent Complete: 20%

Scope	Schedule	Cost	Risks	Quality
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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 started digging into our data as well as continuing our solution design. Now that we have two teams, one for each model, we will begin working on a high-level solution design for both the classical ML model and the Quantum ML model. We also worked out a solution for running the models (once trained) on the Vitis Emulator.

WORK COMPLETED LAST WEEK

We now have two teams, and each team is becoming more familiar with their data as we decide which dataset to use in our model training. We continue to work on the high-level solution design as well. We also came up with a solution to run our models for inference on the Vitis emulator. Since the board simulators are only available on Linux we will be training the models, and once the models are trained moving them to the Linux laptop to run on the emulator.

WORK PLANNED FOR NEXT WEEK

Each team will continue to work together to familiarize themselves with their respective development environments now that everyone has their machines setup and we have a solution for running models on the emulator. We are also going to continue working on our high level solution design.

OPEN ISSUES

- They are currently no open issues.

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
UML Solution Design	008	01/31/2022	02/18/2022	TBD	Incomplete
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