
EE/CprE/SE 491 WEEKLY REPORT 1

1/23/2024 – 2/5/2024

Group number : 5

Project title : Heterogeneous Computing for Machine Learning Algorithms

Client &/Advisor : Dr Philip Jones

Team Members/Role:

Jonathan Tan - DPU, Kira
Josh Czarniak - Pupil Center Location
Justin Wenzel - Blink/No Blink Algorithm
Kai Heng Gan - OpenCV
Santiago Campoverde - Data Profiler/Meeting Leader of the week

○ **Weekly Summary**

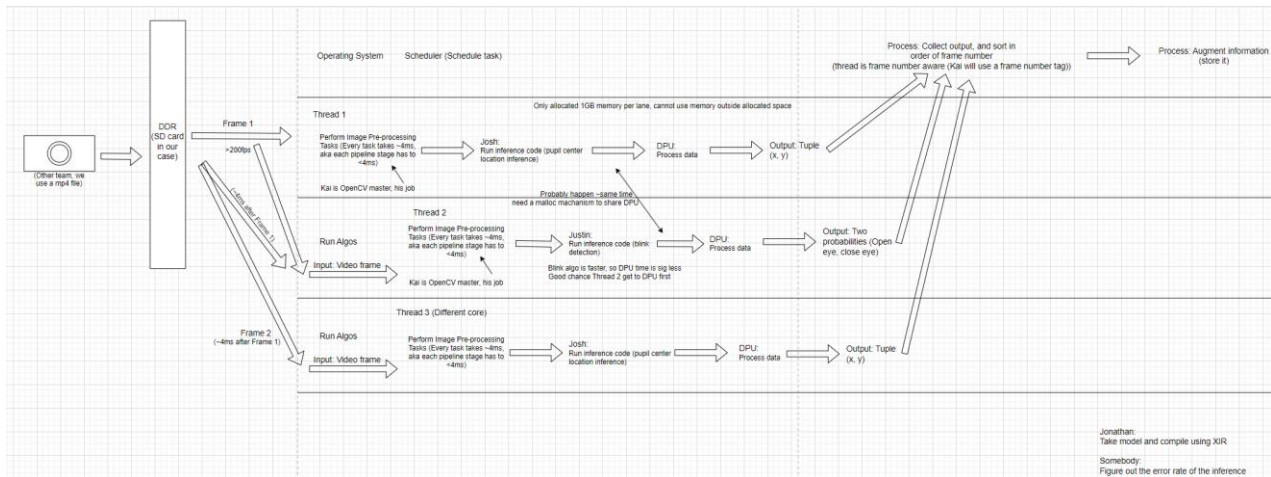
This week's objectives are to meet with the client and attempt to fully understand our individual roles and responsibilities. We as a team also met to get to know each other better as well as finalize team logistics.

○ **Past week accomplishments**

Team Member:

- Jonathan Tan: Worked on XIR presentation, 1-on-1 meeting with client.
- Josh Czarniak: Started investigating main.cc, 1-on-1 meeting with the client.
- Justin Wenzel: Created introduction to machine learning presentation, 1-on-1 meeting with the client
- Kai Heng Gan: Worked on OpenCV presentation, 1-on-1 meeting with client.
- Santiago Campoverde: Lead the client meeting presentation, 1-on-1 meeting with client.

○ **Team Plan Block Diagram:**



The team plan block diagram was created to help illustrate each member's role in the system to all team members and how the expected process will work. This diagram allows a strong starting illustration for each team member to reflect on their role and creates a bigger picture of each team member's goal for the project. The diagram is expected to continue to be used and grown upon throughout the project but currently is a starting road map for the project.

○ **Pending issues**

- Jonathan Tan : Waiting for hardware.
- Josh Czarniak : Waiting for hardware.
- Justin Wenzel : Waiting for hardware.
- Kai Heng Gan : Waiting for hardware.
- Santiago Campoverde : Waiting for hardware.

○ **Individual contributions**

<u>NAME</u>	<u>Individual Contributions</u>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Justin Wenzel	Attended meetings, ML introduction presentation	4	4
Jonathan Tan	Attended meetings	4	4
Josh Czarniak	Attended meetings	4	4
Kai Heng Gan	Attended meetings	4	4
Santiago Campoverde	Lead the client meeting presentation	4	4

○ **Plans for the upcoming week**

- Jonathan Tan: Better understand how the DPU works.
- Josh Czarniak: Next advisor meeting leader, better understand the main.cc file, investigate following the pupil center.

- Justin Wenzel: Learn and create a presentation on VART to share, review the main.cc skeleton code.
- Kai Heng Gan: Planning on how to receive frame for image processing from SD card.
- Santiago Campoverde: Research Vitis-AI, AI Profiling, RMSE