PhD Supervisor Meeting

December 3, 2024 Thomas Swarbrick¹²

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¹Supervised by Dr Haris Rotos & Prof Nicholas Race.

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References, Sources, & Further Reading

1 Ongoing Reading

1.1 Covering Additional Content

As part of the PhD Bi-weekly meeting I have continued to read around the subject area and learn more about the subject, I have particularly focused on the areas outlined below.

1.1.1 365 preparation.

In preparation for the 365 module next term I have undertook the following reading in the inter-rim period:

- Re-watched the 365 lecture content from last year, make new sets of notes, convert notes into Anki Flashcards, introduced into spaced repetition learning regimen.
- Worked on the coursework implementation/Ryu tutorials from last year to be confident enough to TA/Assist in the delivery of labs for the 2024/2025 academic year.
- Additional reading from recommended reading list that may be listed in the module such as:
 - Book referenced in the Moodle page.
 - Important papers that are directly related.

1.1.2 GPU/Encoding reading.

I have began the starts of my idea by beginning to learn how to run OpenCL kernels on the graphics card on the fiona system (A40).

• Implementation of the DCT2 II /DCT2 III in kl/c97 for further understanding.

1.1.3 Mathematics.

Working through additional mathematics to further my understanding of mathematics, making use of both the MIT Opencourseware Mathematics and Books on Information theory from the library.

- · Re-freshers on proofs, number theory & graph theory.
- Reading of Information theory, along with encoding ideas by Thomas M. Cover et al.

2 S_x Breakout

- 2.1 Diagrammed Work from Ed Suggestion
- 2.2 Approaches to cross-correlation

3 Additional Learning

- 3.1 Beuwulf Cluster
- 3.1.1 Ansible
- 3.1.2 K8s
- 3.2 LATEX
- **3.2.1 Beamer**
- 3.2.2 Report

4 Reading

- 4.1 Networking related textbooks/concepts to explore.
- 4.2 Unsorted papers to read.