# **PhD Supervisor Meeting**

November 25, 2024 Thomas Swarbrick<sup>12</sup>

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<sup>1</sup>Supervised 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 an implentation of my idea by begining 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 maths understanding.

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 Diagramed 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.