

COMP350: Algorithms & Optimisation

1: Module Intro & The Optimisation Process

Learning outcomes

By the end of today's session, you will be able to:

- ▶ **Recall** the key stages of the graphics pipeline
- ▶ **Explain** the differences between a CPU and a GPU
- ▶ **Write** basic programs using SDL and OpenGL

Module Introduction

Module Aims

- ▶ Gain in understanding of techniques used professionally in the management of computing resources.
- ▶ Acquire knowledge and experience of concepts used to predict and model resource use.
- ▶ Acquire the knowledge and experience to enable critical evaluation of trade-offs to generate optimisation and efficiency.

Assignment Details

Assignment Overview

- ▶ Optimisation Task - 50%
- ▶ Porting Task - 30%
- ▶ Research Journal - 20%

Assignment 1 - Optimisation Task

- ▶ Take an existing project and optimise
- ▶ You have to identify the tools required for optimising
- ▶ I am more interested in your **process** during the task
- ▶ First Submission - **Friday 9th of February at 5pm**
- ▶ https://github.com/Falmouth-Games-Academy/bsc-assignment-briefs/raw/2017-18/comp350/1/comp350_1.pdf

Assignment 2 - Porting

- ▶ Continue on with the project from Assignment 1
- ▶ Port your project to one of the following Platforms - PS4, Android, iOS
- ▶ You will have to fulfil some of the Technical Requirement for that platform
- ▶ https://github.com/Falmouth-Games-Academy/bsc-assignment-briefs/raw/2017-18/comp350/2/comp350_2.pdf

Assignment 3 - Research Journal

- ▶ Write a 1200 word research journal on optimisation & porting
- ▶ Contribute to a community Wiki
- ▶ https://github.com/Falmouth-Games-Academy/bsc-assignment-briefs/raw/2017-18/comp350/3/comp350_3.pdf

Optimisation

Coffee Break

Housekeeping and Admin

Supporting Hardware

Debrief

- ▶ **Recall** the key stages of the graphics pipeline
- ▶ **Explain** the differences between a CPU and a GPU
- ▶ **Write** basic programs using SDL and OpenGL