

Department of Computer Science

() Student: Harrison Cooper, , Cohort: I3int, Session: 1718

Title: DCW-UG-6 Development of an agent-based model capturing cellular interactions associated with heart attack

Supervisor: D.Walker

Student performance (supervisor only)
Harry has enthusiastically engaged with this challenging project. He has attended all meetings, usually with evidence of work in-between and with a list of questions and discussion points prepared.
Amount of work completed
Harry has carried out a good literature review relating to endothelial cells and tissue and looked at several potential software tools. He has also become familiar with and carried out some profiling work using a custom written Python ABM, working with little guidance and documentation.
Analysis
The main challenges and tasks have been identified and a thorough risk analysis carried out. Some aspects of the analysis (i.e. separating programmed vs emergent behaviour) could have been explained more coherently.
Time Plan
A detailed time plan is presented covering most of the required tasks, though this spans several pages so is rather difficult to read.
Literature Survey or Background Information
Harry has carried out quite a detailed review of endothelial cell proliferative and senescent behaviour, in spite of the initially unfamiliar specialised biological terminology. He has also summarised some of the characteristics of various software tools. He could also have mentioned migration, which is important in wound healing and briefly reviewed some published ABMs of relevant systems.
Report Presentation
Writing style is good, with appropriate referencing in the text. Some labelled and captioned figures are used. Structure could be improved as there are some elements of analysis appearing in both the background and work done chapters. Each chapter should start on a new page. Abstract needs clarification.
General comments
Harry has made a good start on this challenging project in an unfamiliar subject area. If he continues with this work ethic this should result in a successful project. He should ensure that his final mark reflects his efforts by making sure than his work is described in a logical and coherent way.