Propose a vacation student project for Summer 2019

Deadline for making your proposal(s): 17:00 Friday 22 March 2019. This is a hard deadline.

This form is for one project proposal, so to propose multiple projects please submit a separate form for each project. Any queries, do ask - Toby.

Project supervisor email *

gareth.henshall@manchester.ac.uk

Title of the project *

Establishing a Student Software Company

Source of funding *

- School funding requested
- You have your own funding (e.g. research grant)

Objective of the project *

We would like to follow some of our competitor schools (and partners in the Institute of Coding) and set up a “student enterprise” within the School of Computer Science. This would be a software development company, run by staff in Computer Science and employing our undergraduate students over the summer (and maybe part-time during term-time) to develop software for clients. The project this year will aim to pilot the scheme, by both setting up the company itself (developing branding and a website, a development environment, etc) and by developing software for our first client.

Interviews will take place during the week starting April 22nd.
Number of students requested (justify if > 1) *

4, we have funding for 4 students and we wish to create a team to work on the projects.

Start date, end date, total duration (weeks) *

12 Weeks (10th June - 30th August)

The benefit to the School *

We feel this will benefit the school as this will enable students to work on projects from external clients and be involved with the process in full. In future years we would like the students themselves to be searching an approaching companies for potential project that the team could work on.

The benefit to the student *

Involvement with the new company will be massively beneficial to the students, who will gain real experience of software development and project management, including developing the soft skills so valued by employers but which are difficult to acquire in a lab-based setting. On top of this they could say they were one of the founding members of our student company, potentially a major CV boost (especially for those students who, for whatever reason, are unable to take a placement year).

Skills needed by the student. *

General Software Engineering Skills, with a commitment to producing high quality, resilient code
Good communication and team working skills
Creative problem-solving skills
Willingness to work with the tools and processes used by the team/needed by the client
Details of the work that the student would do *

For this first year, the Student Enterprise vacation students will focus on two main goals:

Establishing the company itself.
Building, testing and delivering software for the company’s first client.

The first task will involve the following:
Designing a name for the company, and associated branding (in conjunction with help from the University’s commercialisation team)
Setting up a website for the company
Designing (and refining) a suitable software process for use by the company, based on agile methods.
Organising the (physical and virtual) spaces the project team will use for development and for client communication.
Carrying out some market analysis/customer discovery to help prepare the company for its second and third clients.
Helping to market the company through blogging and external engagement activities.
Interacting with the enterprise advisory board.
Interacting with the other Institute of Coding partners (both established student enterprises, and those just starting up, like ourselves).

The second task will involve:
Meetings with the client to understand and agree requirements.
Management of user experience and interface design.
Design of the system and division of the work amongst the team.
Project planning and tracking, to make sure value is delivered on time.
Implementation of test and production code.
Regular demonstrations to clients, to gather feedback.
Deployment to the live environment.
User acceptance testing, plus performance/stress testing as required.
Documentation and packaging of the finished system.
Regular team retrospectives.
Infrastructure requirements and any required staff support other than the project supervisor *

An early task for the project team will be to set up a development and test environment for the team, using free resources where possible and finding creative solutions where not. We request the use of 4 PCs over the summer for the team members, and a large whiteboard area for capturing requirements and brainstorming designs.

Supervision arrangements throughout the duration of the project (named staff and dates covering the entire duration) *

Gareth Henshall, Suzanne Embury. All dates covered between us.

Location of the project work (building/room) NB projects must be on-campus *

To be decided.