Computer Science Internships

Two new internships for summer 2016 are available in the Artificial Intelligence Research Group.

Internship 1: "What did I just do and how can I do it again?"

Supervisors: Ian Gent & Chris Jefferson

Internship 2: "Mixed Integer Programming Backend for Savile Row"

Supervisors: Chris Jefferson & Peter Nightingale

Internship details

– Pay is £13.67/hour (this amount is set by the University).

– Exact start date, period of internship, and hours per week are negotiable with the staff involved.

Internship 1: "What did I just do and how can I do it again?"

Experiments are an important part of research in Computer Science, but there are very few tools to help scientists do good experiments. This project relates to experiments performed by a scientist using command line programs. In this case it very often happens that experiments are done by a sequence of shell commands, and they are often almost impossible to reproduce. In this project we ask you to create a tool which (at least for some types of experiments) can work in an shell environment

If you are interested in similar approaches where we might take ideas from, look at projects like "tup" and "recipy":

https://github.com/gittup/tup

https://github.com/recipy/recipy

Internship 2: "Mixed Integer Programming Backend for Savile Row"

Constraint Programming is a programming paradigm where the problems are specified by giving the constraints a solution will satisfy, defining how to solve the problem. Savile Row is a program, written at St Andrews, which can compile the constraint language Essence' to a number of different low level languages, including Minion and SAT.

This Internship will add a new backend to Savile Row, which will compile Essence' into Mixed Integer Programming, a language containing only of simple arithmetic constraints.

This internship will begin with a crash course in both Essence' and Mixed Integer Programming, previous knowledge of either is not expected.

http://savilerow.cs.st-andrews.ac.uk/

https://en.wikipedia.org/wiki/Integer_programming

How to Apply

We are happy to consider students from any year as long as they can demonstrate sufficient knowledge and experience. You can apply for a specific one of these internships or both together.

If you are interested, please email Ian Gent (Ian.Gent@st-andrews.ac.uk), Chris Jefferson (caj21@st-andrews.ac.uk) and Peter Nightingale (pwn1@st-andrews.ac.uk) before Wednesday 4th May with:

– Your name, degree and year.

– Any relevant experience

– A statement of interest that describes why you think you would be a good fit for the relevant internship.

Applications are particularly welcome from women who are under-represented in Research and Development posts at the University.

The University of St Andrews is committed to promoting equality of opportunity for all, which is further demonstrated through its working on the Gender and Race Equality Charters and being awarded the Athena SWAN award for women in science, HR Excellence in Research Award and the LGBT Charter; http://www.st-andrews.ac.uk/hr/edi/diversityawards/

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