The Summer Undergraduate Research Experience (SURE) Programme

Presentation for Undergraduate Research Experience Symposium

Assoc. Prof. Michelle Kuttel
Rationale

- Computer Science as a discipline has difficulty retaining students for post-graduate study
  - Students often are lured into industry at the 3rd and 4th year levels –many of whom would continue into research-oriented degrees in other disciplines

- enhanced research culture in our undergraduates would help them understand the value of research and encourage them to study further.
Goals

• Thus, the primary goal of the programme is to expose students with potential to become researchers, especially Black and female students, to research in Computer Science.

• It is hoped that this will form another pillar in the ongoing training of a future cohort of academics in the discipline.
SURE Description: 2009-2013

- programme in the Department of Computer Science aimed at encouraging undergraduate students, especially from previously marginalised groups, to pursue research-oriented degrees.

- we advertise for applicants in September and select 12 – 16 students

- students do a research project under a supervisor, write a report and attend annual South African Computer Science research symposium (SAICSIT)
SURE at SAICSIT 2013
SURE Project example

A Case Study in the Gamification of a University-level Games Development Course

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SAICSIT paper with undergraduate 1st author!

UNIVERSITY OF CAPE TOWN
DEPARTMENT OF COMPUTER SCIENCE
Links with UCT’s foundation and mission statements

- providing an intellectually and socially stimulating environment
- inspired and dedicated teaching and learning;
- exposure to the excitement of creating new knowledge
- stimulating the love of lifelong learning
- offering access to courses outside the conventional curricula
SURE 2013: Residence workshop

• Previously (2009-2013) held all-day workshop introducing fundamental research methods; key papers and articles in the field; the process of publication; and specific research areas in the department.

• Senior research degree students also are invited to attend this workshop to assist in mentoring.

• Students then did the project by themselves over the summer (but often extended well into July!) and were paid a stipend.
SURE 2013: Residence workshop

This year experimenting with an exciting new format:

• an intensive residential research workshop

• 13 undergraduate students

• run over a two-week period to complete the project
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Comments and Suggestions?