Software Engineering and Software Analytics.

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We are currently involved with the analytics of software. We have three main themes which include:

1) Predictive Modelling in Software Engineering and Software Metrics
   a. Defect prediction
   b. Effort Estimation
   c. Using Ensemble Techniques
2) Software Testing
3) Human Factors in Software Engineering.

We are looking for a PhD student who would be interested in extending the work we have previously started relating to code fingerprinting and/or open up new areas for example the field of testing and defects or the relationship between human factors and software faults.

We are also looking for a PhD student to improve the techniques previously used to identify where faults are in the code, thus improving the quality of defect prediction data. Such an analysis will also allow us to identify fault types which is an on-going piece of research at the University of Hertfordshire and Brunel University.

References to recent work:

David Bowes, Tracy Hall, Mark Harman, Yue Jia, Federica Sarro, and Fan Wu. 2016 Mutation-Aware Fault Prediction. ISSTA 2016


Jean Petrić, David Bowes, Tracy Hall, Bruce Christianson and Nathan Baddoo The Jinx on the NASA Software Defect Data Sets, EASE 2016
