The 17th CREST Open Workshop

Software Testing and Verification

31st January – 1st February 2012
Engineering Front Executive Suite, Roberts Building

Programme

+++++++++31 January – DAY 1+++++++++

10:00   Arrival, Coffee and Pastries

10:30   **Welcome and Introductions**
        Mark Harman, CREST Centre, SSE Group, Department of Computer Science UCL, UK

11:15   **working title: Overview of Software testing**
        Antonia Bertolino, Software Engineering Research Laboratory, ISTI - Istituto di Scienza e Tecnologie dell'Informazione A. Faedo, Italy

12:00   **Experimental Program Analysis**
        Andreas Zeller, Computer Science, Saarland University, Germany

12:30   **working title: Automatically quantifying information leaks in software**
        Pasquale Malacaria, Queen Mary University of London, UK

13:00   Sandwich lunch at the venue

14:00   **Symbolic Crosschecking of Data-Parallel Code**
        Cristian Cadar, Department of Computing, Imperial College London, UK

14:30   **Using Information Theory to Avoid Fault Masking in Software Testing**
        David Clark, CREST Centre, SSE Group, UCL, UK

15:00   **The Yogi Project: Software property checking via verification and testing**
        Aditya Nori, Microsoft Research India

15:30   Refreshments

16:00   **IMUnit: Improved Multithreaded Unit Testing**
        Darko Marinov, Department of Computer Science, University of Illinois, USA

16:30   **Discussion: How can Verification and testing be combined in useful ways?**
        Chaired by Mark Harman

18:00   **End of day 1**

From 18:15 Light dinner at the Marlborough Arms

+++++++++1 February – Day 2+++++++++

09:00   Arrival, Coffee and Pastries

09:30   **Towards Automatic Synthesis of Software Verification Tools**
Andrey Rybalchenko, Technische Universität München, Germany

10:00   **working title: Interpolating the world**
Daniel Kroening, University of Oxford, UK

10:30   **Checking Atomicity of Composed Operations**
Shmuel (Mooly) Sagiv, Tel Aviv University (TAU), Israel

11:00   Refreshments

11.30   **Tool demonstration session**

Dino Distefano: INFER: an automatic program verifier for Memory Safety of C programs

Kiran Lakhotia: The AUSTIN open source search based testing tool for C

Nadia Alshahwan: The SWAT search based testing tool for Web Applications

Yue Jia: The Milu open source mutation testing tool for C

13:00   Sandwich lunch at the venue

14.00   **Discussion: Next steps to develop an agenda for testing and verification**
Chaired by Peter O'Hearn

15:00   Refreshments

15.30   **Automated System Testing of Real-Time Embedded Systems Based on Environment Models**
Lionel Briand, Simula Research Laboratory, Norway

16.00   **working title: Pex and Moles - Isolation and White box Unit Testing for .NET**
Nikolai Tillmann, Microsoft Research USA

16.30   **Learning-based runtime verification (joint work with Bernhard Steffen)**
Tiziana Margaria-Steffen, University of Potsdam, Germany

17:00   **Abstractions from Tests**
Hongseok Yang, Computing Laboratory, University of Oxford, UK

17:30   **Wrap-up: next steps**

18.00   **Close**