Summary

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1 To be completed before class

What are the problems solved by this paper? (50 words)
Debugging an application through software checks or dynamic execution monitoring slows down the execution by 10-100 times. Inserting dynamic checks to monitor code can also lead to unnecessary checks and due to aliasing variables some bugs may go undetected.

What are the approaches attempted by this paper? (50 words)
The authors propose a novel architectural scheme to support dynamic execution monitoring with low overhead. Code is instrumented through an interface to monitor a set of memory addresses and raise exceptions whenever an access to the memory location is made. The authors propose to use TLS to improve the performance.

What are the main conclusions of this paper? (50 words)
iWatcher is a novel technique which detects bugs in the software with a performance impact of about 4-80%. Employing TLS with iWatcher improves the performance by around 30%. iWatcher provides an interface which can be employed across various architectures.

2 To be completed after class

Did this paper address an important issue? Explain. (100 words)

Are the proposed approaches valid? Describe its strength and weakness. (100 words)

Do the results support the conclusions? Explain. (100 words)

Describe the potential future works? (100 words)