Warren Harrison

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Open-Source

Warren Harrison is an internationally known expert in software engineering and computer forensics. He is currently in his second term as Editor-in-Chief of the IEEE Computer Society's popular magazine: *IEEE Software*, and a member of the Computer Society's Magazine Operations Committee. Prior to taking over *IEEE Software*, Warren and Vic Basili started the *Empirical Software Engineering Journal*, published by Kluwer Academic Publishers, and he served as co-EIC of that publication for almost ten years. Warren has also served as Editor-in-Chief of the *Software Quality Journal* and he currently serves as a member of the International Board of Referees for the *Digital Investigation Journal*. He is a member of Motorola Corporation's research visionary board. He also serves on the IFIP 11.9 Working Group (Digital Forensics).

Warren's work in software engineering focuses on software quality as well as metrics and decision making for project management and economic driven software engineering. He is currently involved in a project involving incremental Failure Mode and Effect Analysis (FMEA) with Motorola Corporation. Warren and his students are working on extending classical Software FMEA to allow for incremental analysis.

Computer forensics is a more recent interest of Warren's. He currently has three main projects underway in this area. The first is the Soc-Net*f* project that attempts to construct social networks from the information found on hard drives by law enforcement. The second project entails the construction of an Eclipse-based "Integrated Forensics Environment" (IFE) to integrate the rich set of open-source forensics tools currently available into an easyto- use digital forensics workbench. His third project is a collaboration with Jill Slay at the University of South Australia which involves developing a common storage area network and remote forensics analysis infrastructure for use by rural law enforcement agencies in both Australia and the United States.

Warren also has additional interests in innovative law enforcement and public safety applications. These range from directional sensors that can be used during building searches to automated license plate recognition and evaluation applications for deployment on patrol cars.

Some of his relevant publications include:

• "The Digital Detective: An Introduction to Digital Forensics", a chapter in *Advances in Computers,* Volume 60, edited by M. Zelkowitz, Academic Press, 2004, pp 76-119.

• ``High Tech Forensics: Serving as a Police Reserve Specialist'', *Communications of the ACM*, July 2004, pp 48-52 (with G. Heuston, W. Harrison, S. Mocas, M. Morrissey and J. Richardson).

• "A Lessons Learned Repository for Computer Forensics", *International Journal of Digital Evidence*, Fall 2002 (with D. Aucsmith, G. Heuston, S. Mocas, M. Morrissey, S. Russelle,).

• "The SocNet*f* Project: Sharing Interagency Computer Forensics Data to Construct Criminal and errorist Social Networks", *First Annual IFIP WG 11.9 International Conference on Digital Forensics*, February 2005.

• "Software Measurement: a Decision Process Approach", a chapter in *Advances in Computers*, Volume 39, edited by Marshall Yovits, Academic Press, 1994, pp 51-105.

• W. Harrison, "A flexible method for maintaining software metrics data: a universal metrics repository", *Journal of Systems and Software*, July 2004 pp 225-234.

• Using the Economic Value of the Firm as a Basis for Assessing the Value of Process Improvements, Proceedings of the *2001 NASA/IEEE Software Engineering Workshop*, November 2001, pp 123-127.

In his spare time, Warren serves as a Deputy with the Clackamas County Sheriff's Office, assigned to the Patrol Division. Prior to this, he served as a Police Reserve Specialist in Computer Forensics with the Hillsboro Police Department. He teaches the PSU/CS capstone series, the Oregon Master of Software Engineering course on metrics & decision-making, a course on computer forensics as well as courses on web-enabled cell phones and client- and server-side programming.