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Temple University

Computer and Information Sciences

Toward Obfuscation Resilient Software Plagiarism Detection

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Abstract:

Software plagiarism is an act of reusing someone else's code, in whole or in part, into one's own program in a way violating the terms of original license. Along with the rapid developing software industry and the burst of open source projects, software plagiarism has become a very serious threat to Intellectual Property Protection and the "healthiness" of the open-source-embracing software industry. High profile billion-dollar lawsuits dealing with software plagiarism cases have already emerged and showed that even software giants steal code. To address this threat, computer-aided, automated plagiarism detection tools should play a major role. However, existing plagiarism detection schemes are not resilient to simple code obfuscation. Moreover, many existing tools rely on analyzing the source code of a suspected software product, which often cannot be obtained until some strong evidences are collected. We aim to develop binary-oriented, obfuscation-resilient plagiarism detection methods that do not require source code analysis. In this talk, we will present methods and some of our findings along this research direction.

Bio:

Dr. Sencun Zhu is an associate professor at Department of Computer Science and Engineering and College of Information Sciences and Technology, the Pennsylvania State University. He received the PhD degree in Information Technology from George Mason University in 2004. Prior to that, he received the M.S. degree in Signal Processing from University of Science and Technology of China in 1999 and the B.S. degree in Precision Instruments from Tsinghua University in 1996. His research interests include network and systems security with focuses on wireless security, online social network security, and software security. His personal webpage is at <http://www.cse.psu.edu/~szhu>.