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Software Plagiarism Finder

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Abstract: *Software plagiarism, the illegal copying of code, negatively impacts both open-source communities and legitimate companies. Notable incidents include Verizon being sued by the Free Software Foundation for distributing Busy box in its routers, and Skype's licensing issues with Joltid. Plagiarism is easy to execute but hard to detect, with a 2012 study indicating that 5%-13% of apps in third-party markets are copied from the official Android market. Challenges in detection arise from the lack of source code and advanced code obfuscation techniques. Researchers have developed methods like software birthmarking, which extracts unique characteristics from programs to identify them. Birthmarks can be static or dynamic; static birthmarks analyse syntactic features but struggle against obfuscations and packing techniques. Dynamic birthmarks, derived from runtime behaviours, are more accurate and robust. However, the rise of multithreaded programs poses a challenge to existing detection methods, which are optimized for sequential programs*

Keywords: Software Plagiarism, Code Obfuscation, Birthmarking Techniques, Detection Challenges, Multithreaded Programs

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