Proposition de recherche doctorale

Human-assisted vulnerability discovery

Mots clés : Array

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Résumé du projet de recherche (Langue 1)

Software vulnerabilities have never drawn so much attention as they have in the current era. Therefore, the discovery and mitigation of software vulnerabilities is crucial from different points of view. Cyber Reasoning Systems (CRSes) have been created to address this task. However, results have shown that human involvement is still required to accomplish the activity of bug and vulnerability research. At the same time, it is evident that such jobs cannot be handled manually on large-scale, without the adoption of dedicated systems. Finally, the collaboration between humans and CRSes seems to be a promising approach to reach scalability, automation, and accuracy in the process of bug finding. By following this approach, we hope to create a system that can find deep-nested vulnerabilities in complex real-world software that are inaccessible for current state-of-the-art systems.