A Hybrid Approach to Security Attack Detection in Containerized Applications

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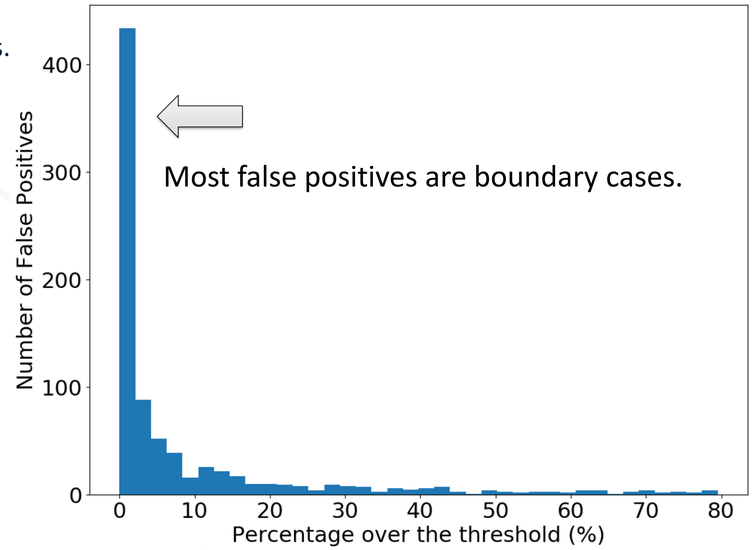
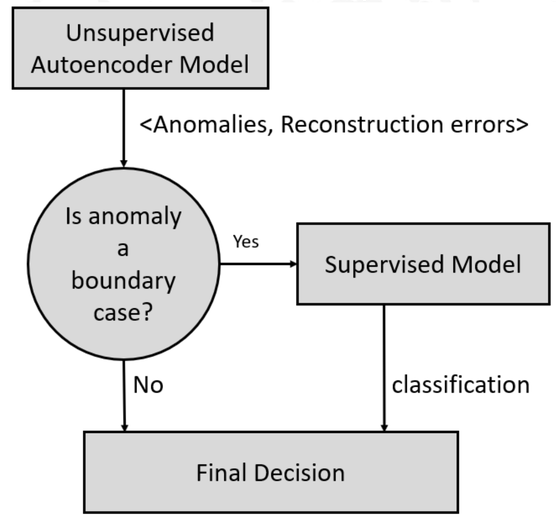
Motivation

- Containerized applications have many security vulnerabilities.
- Previous work proposes supervised and unsupervised approaches.
- However, false positives are still too high to be practical.



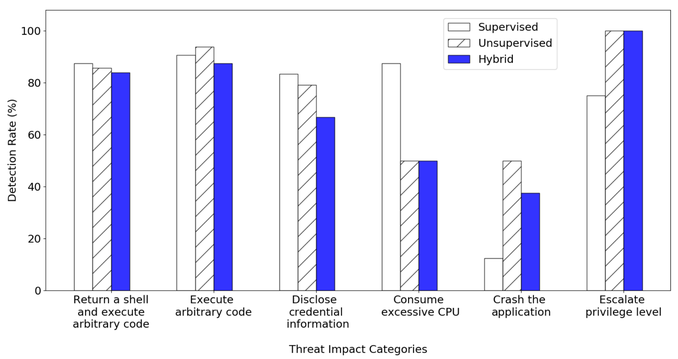
Hybrid Approach

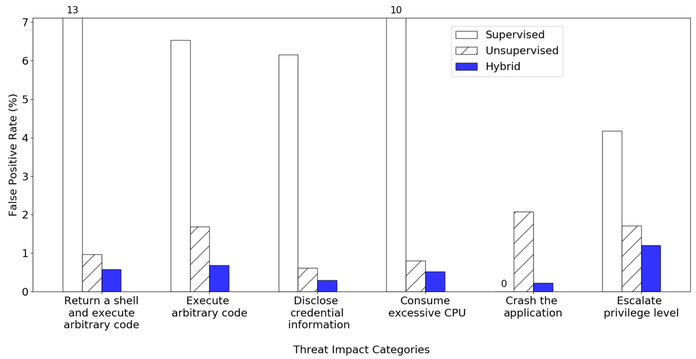
Combine supervised and unsupervised learning.

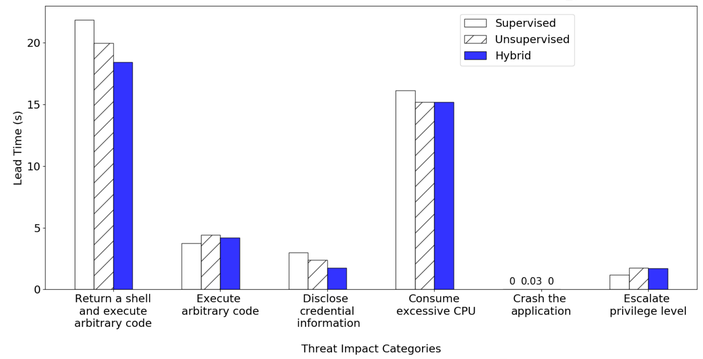


Results

- We evaluate over 33 real world vulnerabilities in 24 commonly used server applications.
- Our hybrid approach reduces false positive rate by 52.6% while only reduces detection rate by 6.4%.







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