

Securing Information Systems with Flexible Hardware Techniques

Challenges:

- Growing number of cyber attacks
- Ever changing malware landscape
- Novel attacks targeting hardware vulnerabilities

Solution:

- Hardware-based re-configurable malware detector
- Flexible software-hardware isolation
- Architecture support for securing confidential data



Secure Computer System

Applications with Flexible Security Requirements

OS Support for Security

Hard IP Cores

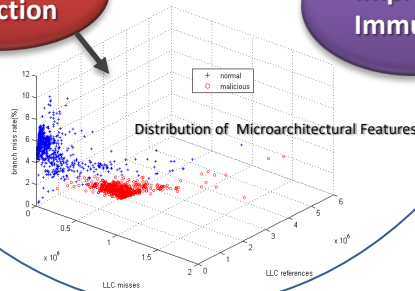


Programmable Secure Hardware

Software-Hardware Co-Design

Fast Detection

Improved Immunity



Scientific Impact:

- Explore a path forward for developing future secure computer systems
- Improve the research community's understanding of hardware security

Broader Impact and Broader Participation:

- Collaboration between academic researchers with Industry
- Attract and train minority students in the field
- Engage with pre-university students through IEEE Webinar
- Make tools widely available to the research community

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