

Aspiring PI Info:

- Phu H. Phung
- Associate Professor
- Department of Computer Science, University of Dayton



Research Interests:

- User-centric privacy policy enforcement with formal assurance
 - A focus on code-origin policy for the Web and Web-based mobile apps
- Security and Usage Control for Cyber-Physical Systems/IoT
- Malware classification and Anomaly Detection

Current Projects

- Towards Formal Policy Specification and Verification for the Web/Web-based mobile apps
 - Code-Origin Policy - A Formal End-User Privacy-Preserving Model for the Web
- Runtime Analysis for Malicious JavaScript/WebAssembly Classification
- Context-Sensitive Access Management for Edge-Driven IoT Data Sharing

Project Ideas

- Empower end-users the possibility to be in control of privacy and security
- Can integrate runtime monitors and verification into browsers/containers: a long-term solution for the web and mobile device industry
 - Require applications to be verified based on their functional behaviors
- Education and Outreach:
 - stimulate interest in STEM fields for junior high school students

Possible collaborators sought

- Formal Methods: Formal Policy Specification and Verification, Proof-Carrying Code Deployment
- The Field: WebAssembly, Mobile Apps, CPS

