Aspiring PI Info:

- Name: Luan Nguyen
- Position/Title: Assistant Professor in Computer Science
- Affiliation: University of Dayton

University of Dayton
Department of Computer Science

Research interests:

- Formal Verification, Model-based Repair
- Logic-guided Testing, Specification Mining
- Cyber-Physical Systems
- Safe Decentralized Control
- Secure Information Flow Analysis
- Safe AI

Current Project(s)

- NSF-CRII-SHF: Model-Based Repair of Cyber-Physical Systems for Improving Resiliency
- OHIO-OCRI: Innovations in Cybersecurity and Software Development through Applied Formal Methods

Project Idea(s)…

- Automated Formal Verification of Browser Fingerprinting, JavaScript and Web Assembly
  - Enhance privacy protection and security for web technologies
- Feature Selection in Safe Reinforcement Learning
  - Improve model reliability, reduce computational costs
- Safe Decentralized Control of Multi-Agent Learning-Enabled Systems
  - Improve safety and efficiency for autonomous driving
- Education: Develop a concentration program in Applied Formal Methods at University of Dayton
  - enhanced by industry partnerships with local companies *such as Riverside Research, SOCHE , Novobi LLC* , etc.
- Outreach: Bootcamp for K-12 Students

Collaborators sought

- Formal Methods: real-time verification, automated model transformation and synthesis, theorem prover
- Fields: robotics, web and mobile applications, cyber-physical systems