

Hansol Yoon

University of Colorado Boulder
2300 Arapahoe Avenue 326
Boulder, CO, 80302

Mobile: (303) 990-1106
Email: hansol.yoon@colorado.edu

Research Interests

Runtime verification; Predictive runtime verification; deep learning; robotics.

Education

Ph.D. Computer Science, University of Colorado Boulder, Advisor: Prof. Sriram Sankaranarayanan	Aug. 2019 - Present
M.S. Computer Science, University of Colorado Boulder,	Aug. 2017 - May. 2019
B.S. Computer Science, Republic of Korea Air Force Academy,	Mar. 2006 - Mar. 2010

Student Projects

Predictive Runtime Monitor for Unmanned Aerial Vehicles

Built an algorithm to check a safety violation by predicting future behaviors of a UAV.
Created a runtime monitor to guarantee safety of a UAV under disturbances.

Small Autonomous Driving Car

Developed and implemented a control algorithm integrating sensor data.
Implemented deep learning to recognize a stop sign.
Implemented VI-SLAM using a camera.

Work Experience

Avionics Software Development Center in Republic of Korea Air Force	2011 - 2017
Participated avionics software development projects as a project manager and a software engineer. Designed and tested software in Israel and Germany as a representative of the Korean Air Force.	

Skills

OS: Linux, MacOSX, and Windows
Languages: Python, C, Matlab

Publication

Yi Chou, [Hansol Yoon](#), and Sriram Sankaranarayanan, "Predictive Runtime Monitoring of Vehicle Models Using Bayesian Estimation and Reachability Analysis" *International Conference on Intelligent Robots and Systems (IROS)*, 2020.

[Hansol Yoon](#), Yi Chou, Xin Chen, Eric Frew, and Sriram Sankaranarayanan, "Predictive Runtime Monitoring for Linear Stochastic Systems and Applications to Geofence Enforcement for UAVs" *International Conference on Runtime Verification (RV)*, 2019.