LLM-Based Multi-Agent System to Accelerate DevSafeOps for Autonomous Driving

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VINNOVA Sweden's Innovation Agency
Diarienummer: 2021-02585

Public Defence

Accelerating the Design Phase: Towards DevSafeOps for Autonomous Driving Software

Opponent: Prof. Philip Koopman, Carnegie Mellon University
Examiner: Prof. Jan Bosch, Chalmers University of Technology
Date: 27 September 2024 13:00-16:30
Place: Styrbord Lecture Hall, On-site on campus Lindholmen, Gothenburg

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2022

Challenges from Continuous Monitoring, Improvement, and Deployment (DevOps) for Autonomous Driving Features [1].

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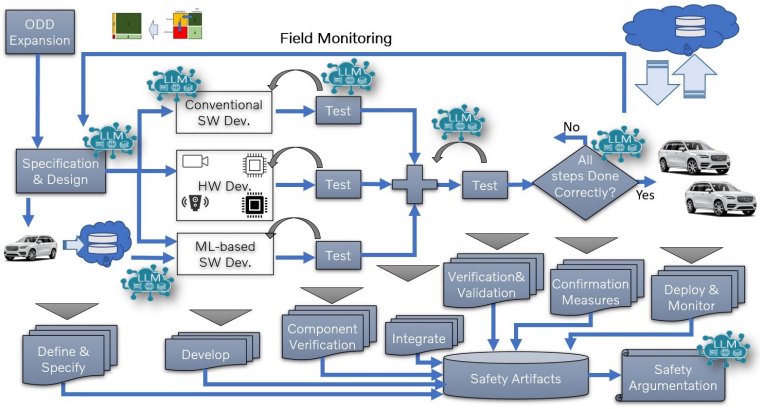

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Systems-Theoretic Process Analysis (STPA) [2, 3]

2022 STAMP WORKSHOP

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Welcome Your New AI Teammate: On Safety Analysis by Leashing Large Language Models [4]

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Engineering Safety Requirements for Autonomous Driving with Large Language Models [5]

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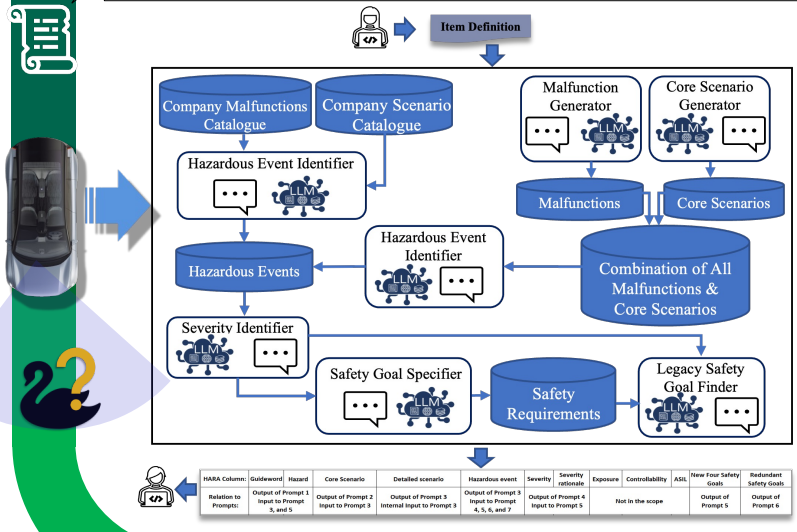

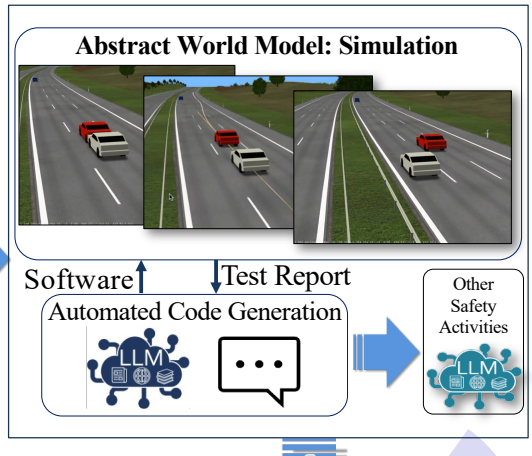

2025

2026

Publications:

[1] A. Nouri, C. Berger, and F. Törner, "An Industrial Experience Report about Challenges from Continuous Monitoring, Improvement, and Deployment for Autonomous Driving Features," in Proceedings of the 47th EUROMICRO Conference on Software Engineering and Advanced Applications (SEAA), (Maspalomas, Gran Canaria, Spain), Sep. 2022.
[2] 2022 MIT STAMP Workshop, http://psas.scripts.mit.edu/home/ 2022-stamp-workshop-program/
[3] A. Nouri, C. Berger, and F. Törner, "On STPA for Distributed Development of Safe Autonomous Driving: An Interview Study," in Proceedings of the 49th EUROMICRO Conference on Software Engineering and Advanced Applications (SEAA), (DURRES, ALBANIA), Sep. 2023.
[4] A. Nouri, B. Cabrero-Daniel, F. Torner, H. Sivencrona, C. Berger, Welcome Your New AI Teammate: On Safety Analysis by Leashing Large Language Models CAIN '24, Association for Computing Machinery, 2024.
[5] A. Nouri, B. Cabrero-Daniel, F. To¨rner, H. Sivencrona, C. Berger, Engineering Safety Requirements for Autonomous Driving with Large Language Models 2024 IEEE 32nd International Requirements Engineering Conference (RE).

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