

Peter Kovacs

SYSTEMS ENGINEER • SYSTEM ARCHITECT • SAFETY ENGINEER

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Professional Summary

I'm experienced in systems engineering and system design of automotive computer vision, electric powered steering and autonomous systems. All of my previous roles were related to functional safety, and through my career I worked on all levels of the V model from user function design all the way down to implementation. When it comes to standards, I worked mostly with ASPICE, ISO26262 and SOTIF. Regarding tools I am familiar with DOORS, SystemWeaver, Matlab, Polaron, CANoe, git and more. On vehicle level communication I have worked with CAN and automotive Ethernet (SOME/IP). Apart of systems engineering I have experience in process development, dynamic modelling, various analysis methods (FMEA, FTA, DFA, etc.) and software development.

Keywords

ISO26262, System design, Systems engineering, Requirement engineering, Software development

Experience

2025 march - : Scania CV AB (TRATON SE)

Functional safety engineer | Autonomous Transport Solutions

- Technical Safety Concept development for AD specific components
- Fault Tree Analysis
- Dependent Failure Analysis
- HARA, FSC work

2024 – 2025: Cascade Drives AB:

System safety engineer | Electric Powered Steering

- ISO26262 compliance incl DIA, TSC, and processes
- State space model of the steering assembly
- System behavior design and requirement negotiation/breakdown
- FTAs, System FMEA responsibility

2023 – 2024: Stoneridge Electronics AB:

System architect | MirrorEye2

- Feature development
- Requirement engineering

2020 – 2023: Zenseact AB:

Systems engineer | AD/ADAS Vision System

- System architecture and design
- Process development
- Safety analysis
- Requirement analysis and breakdown
- Onboarding training about functional safety for developers/managers

Software developer | Python, C, SQLite and hierarchical databases

- Complete responsibility for developing and introducing a custom text-based requirement management tool including:
 - Report generation showing coverage
 - Consistency checks against requirement tree and production code
 - Gerrit, SystemWeaver and test result database integration using REST APIs

2016 – 2020: Robert Bosch GmbH:

System test engineer | Near Range Camera Systems

- Vehicle testing and application
- Writing system requirements in DOORS (image processing and system states)
- Writing system test cases
- Managing and investigating customer reported bugs
- Analysis of communication and diagnostic logs
- Joint testing and application on customer site
- System FMEA

Team Lead (2018-2020)

- Hiring of new colleagues
- Managing the work load of the team (6 engineers, 2 interns)
- Performance evaluations and face to face meetings

2014: Hungarian Academy of Sciences | Institute for Computer Science:

Research engineer intern

----- Education -----

Management and Leadership MSc, Corvinus University of Budapest

Thesis work: Research in scalable company wide access management system (sponsor: Robert Bosch GmbH)

Vehicle Control Engineer MSc, Budapest University of Technology and Economics:

Thesis work: LQ optimal trajectory tracking control development and HIL simulation over CAN using CarSim, Simulink, TI, Vector toolchain

Aeronautical Engineer BSc, Budapest University of Technology and Economics:

Thesis work: The future of distributed augmented air traffic control systems

----- Skills -----

Tools:

- Matlab SIMULINK
- DOORS NG
- SystemWeaver
- Vector CANoe
- CarSim
- Atlassian tools
- Polarion
- git, Gerrit, Gitlab

Skills:

- ISO26262 Functional Safety
- ASPICE
- FMEA, FTA, DFA analysis
- Safety critical system design
- Python
- C
- Feature development
- Dynamic system modelling and control design
- Agile way of working

Languages:

- English: Fluent
- Swedish: Professional
- German: Passive
- Hungarian: Native