

# Dávid Sámoczi

With over a decade of experience in the automotive industry paired with passion for cybersecurity

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## Professional Experience

### Staff Cybersecurity Engineer, Knorr-Bremse

July 2024 - Present

- Leading the cybersecurity validation activities in truck products portfolio
- Defining cybersecurity validation automatization processes and tools
- Researching and defining penetration testing methods
- Improving Cybersecurity Management System (CSMS) processes
- Managing cybersecurity subcontractors

### Senior Cybersecurity Consultant, itemis

Feb. 2022 - July 2024

- Helped clients in automotive via cybersecurity consulting and training
- Established and managed TARA Services team
- Executed Threat Analysis and Risk Assessments (TARA) for OEM, T1, T2
- Performed CSMS gap analysis and improved process for clients
- Shaped future of itemis SECURE (formerly Yakindu) TARA tool

### Senior Cybersecurity Engineer, Knorr-Bremse

June 2019 - Feb 2022

- Defined and integrated cybersecurity policies and processes for CSMS
- Executed cybersecurity validation activities incl. ECU penetration testing
- Established secure software design and coding guideline and processes
- Defined hardware hardening guidelines
- Improved the cybersecurity of manufacturing (OT) environment

### Senior Software Coordinator, Knorr-Bremse

Aug. 2016 - June 2019

- Managed product releases and lead Change Control Board activities
- Designed and developed embedded software architecture
- Improved and automated release processes

### Embedded Software Engineer, Valeo

Aug. 2013 - July 2016

- Engineered software across the V-model for Bootloader, CAN, Diagnostics
- Lectured the subject: "Real time systems" in University of Pannonia

### Test Engineer, Flex

May 2010 - Aug 2013

- Developed hardware and software for manufacturing test equipment
- Improved yield of manufacturing lines

## Freelance Work Experience

### Medical cybersecurity Engineering

- Product Owner @ B. Braun | Next-gen dialyzer machine
- Cybersecurity architecture definition
- Product development process improvement

### Automotive cybersecurity consultancy

- ISO/SAE 21434 CSMS implementation
- Threat Analysis and Risk Assessment (TARA)
- Establishing secure manufacturing/OT environment

### Training activities

- Instructor of **SCADEMY's C and C++ Secure Coding** courses
- Automotive cybersecurity specific training material development

### OT/IoT cybersecurity consultancy

- Smart home security
- Residential HVAC control systems' security

## Skills

### Programming Languages and Technologies

C, C++, Python, ASM, Go, LabView, git, CAPL

### Tools and Platforms

GitHub, GitLab, Serena CVS, PTC Integrity, Jenkins, JIRA, Bitbucket, Confluence, IBM Jazz, itemis SECURE, Notion, Eclipse, Enterprise Architect, Doors, Vector DaVinci, Vector CANoe, Vector vTESTstudio, Vector vTESTsystem, Docker

### Standards and Frameworks

ASPICE, ISO/SAE 21434, UNECE R155, UNECE R156, ISO 24089, MISRA C, CERT-C, ISO 27001, ISO 26262, AUTOSAR, ISO 14229, IEC 62304, IEC 81001-5-1, IEC TR 60601-4-5

## Selected Projects

### TARA service (itemis)

Established a team of 5 people to perform TARAs for clients. Defined general TARA process and created libraries to be re-used across TARAs to speed up execution.

### Whole-vehicle TARA (itemis)

Defined a methodology to effectively perform TARAs on vehicle level and manage different levels of abstraction for ECUs and subsystem of a vehicle.

### CSMS deployment (Knorr-Bremse)

Established processes for secure software development, manufacturing, and validation. Performed business unit wide awareness activities and training.

### CI system development (Knorr-Bremse)

Developed a framework to automatically process and integrate software developers' work packages to reduce the time required for software release.

## Education

### Master's degree of Electrical Engineering

Széchenyi István University  
Automatization specialization

### Bachelor's degree of Electrical Engineering

University of Pécs  
Embedded microcomputer systems specialization

## Certifications

### CISSP

ISC2 Member ID: 886414

### Automotive Cybersecurity Engineer (ISO/SAE 21434)

TÜV NORD TNM-ACSE-MCS-Q-241220-0001

## Interests

Motorbikes, hiking, camping, weightlifting, OSINT