Elly Câmpeanu

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Head of Embedded Systems | Automotive Engineering Leader

A strategic and results-oriented engineering leader with over 15 years of comprehensive experience in the full hardware and software development lifecycle within the **automotive industry**. Proven ability to define and execute **embedded systems strategy**, leading large-scale international teams (40+ FTEs) to deliver robust, scalable, and innovative solutions. Expert in **process optimization**, Agile (SAFe), and ASPICE frameworks, with a strong technical foundation in **C++**, **real-time operating systems (RTOS)**, and system **architecture**. A passionate advocate for continuous improvement and technical excellence, adept at high-level **stakeholder management** and driving projects from concept to successful launch.

Core Competencies & Technical Skills

Leadership & Strategy	Technical Expertise	Tools & Technologies
Embedded Systems Strategy	System & Software Architecture	C, C++, Python
Team Leadership & Mentoring	Real-Time Operating Systems (RTOS)	JIRA, Confluence, PTC
International Program Management	Automotive SPICE & Functional Safety	GIT, SVN, MS Project
Stakeholder & Supplier Management	Process Optimization & Automation (CI/CD)	CAN, LIN, UDS, KWP2000
Agile (SAFe) & Waterfall	Internet of Things (IoT) & AI Integration	AUTOSAR, Vector CANoe
Problem Resolution (8D, 5Why)	Electronics & Hardware Platforms (e.g., Aurix)	Windows, Linux

Professional Experience

CEO & Senior Engineering Consultant | Debug Nomad SLU | April 2019 – Present

Providing expert consultancy to Tier 1 automotive suppliers in e-mobility, focusing on embedded systems development, functional safety, and program management.

- **Define and deliver embedded systems strategy** for clients, aligning technical roadmaps with business objectives to ensure market-leading product development.
- **Lead, mentor, and grow talented teams** of embedded engineers, managing a global technical software program with over 40 remote team members.
- **Oversee the architecture, development, and deployment** of robust, scalable embedded solutions, ensuring compliance with Functional Safety (ISO 26262) and ASPICE standards.
- **Collaborate closely with product, hardware, and software teams** to deliver seamless end-to-end systems, managing suppliers and all key stakeholders.
- Champion **innovation and continuous improvement**, successfully automating development processes and coaching technical teams to enhance efficiency and quality.

Key Consultancy Projects:

Product & Program Manager (IoT & AI Farm Upgrade) | April 2023 – June 2024

- Architected and managed an **Internet of Things (IoT)** and AI solution to digitalize a production line, improving product quality through real-time data measurement and analysis.

Solution Manager Consultant (Automotive RADAR for BMW) | March 2022 – December 2022

- Led the function development team, managed requirements, and served as the primary customer interface for all technical functions.
- **Achievement:** Drastically improved system stability by reducing the backlog of unresolved issues from over 600 to just 60 through strategic problem resolution and team leadership.

Software Program Manager Consultant (Electric Drive Unit for VW) | January 2020 – September 2020

- Directed a 40-person international engineering team in porting a complex software platform to a new **Aurix hardware architecture**.

- **Achievement:** Reduced software integration time from one week to a single day by implementing CI/CD concepts and automated checks.
- **Achievement:** Cut development process overhead by over 800 hours per month by eliminating team waiting times ("muda").
- **Achievement:** Saved approximately €30,000 in tooling costs through strategic license and testbench sharing.

Tech Lead Software Consultant (BMS for SAIC-GM, AUDI) | April 2019 – November 2019

- Coached and expanded a remote embedded software team, increasing capacity by 5x in under one month.
- Managed the AUTOSAR diagnostics stack specification and implementation, improving software quality and reusability across three major projects.

Engineering Lead & Manager | Lear Corporation | February 2010 – November 2018

- **Tools Engineer Lead:** Supported a 700-person software development community with essential tools and managed IT infrastructure access.
- **Software Team Leader:** Led the software and testing teams for a complex **BMW Battery Management System (BMS)** project.
- **Software Problem Resolution Manager:** Managed defect lifecycles for Body Control and Lighting modules for BMW and Daimler.
- **Function Owner & Embedded Engineer:** Led a remote team in India, integrated 3rd party software (Wiper, Power Windows), and developed UDS diagnostics for VW and BMW.

Embedded Software Engineer | Continental Corporation | November 2006 – August 2009

- Developed and integrated embedded software for various automotive systems, including sunroof modules, power window drivers, and diagnostics (KWP2000 over LIN) for VAG projects.
- Responsible for CAN stack integration and creating CANoe panels for integration testing.

Education & Professional Development

- **Digital SMEs Training Program for management** (Expected 2025)
- **MBA in New Technologies** (Expected 2025)
- **ASPICE v4.0 & Cybersecurity** (2023)
- **Software Project Management Courses** (2020)
- **Master of Science in Digital Telecommunication** (2008)
- **Bachelor of Science in Electrical Engineering and Computer Science** (2006)