



Amer Kajmaković

✉ amer.kajmakovic@gmail.com

in amerkajmakovic/

Bosnia and Herzegovina, Austria

About me

I bring over a decade of expertise in industrial digitalization, with a strong focus on cognitive products that enhance safety, system availability, and sustainability. My research drives innovation in functional and industrial safety, as well as in the optimization of manufacturing processes, where I develop forward-looking solutions for digitalization and retrofitting. I am deeply committed to bridging the gap between academia and industry, fostering impactful collaborations that advance the state of the art in embedded systems, particularly in applying AI to safety-critical domains.

WORK EXPERIENCE

June 2025 – present

Area Manager & Key Researcher

Pro2Future GmbH, Area Cognitive Products, 8010 Graz, AT

- Responsible for strategic direction, coordination of research, and area oversight,
- Provides academic leadership, including supervision and team development
- Leads proposal writing, project acquisition, and ensures scientific excellence

June 2023 – May 2025

Senior Researcher and Area Deputy Manager

Pro2Future GmbH, Area Cognitive Products, 8010 Graz, AT

- Project acquisition and management, research in the field of cognitive products and production systems.
- Technical supervisor of Bachelor, Master and Doctoral students.
- Maintenance of company's profile on LinkedIn

Dec 2017 – Jun 2023

Researcher

Pro2Future GmbH, Area Cognitive Products, 8010 Graz, AT (5 yrs 1 mos)

- Researcher/Engineer in the field of so-called cognitive products and cognitive production systems. The research is done in collaboration with an industrial partner in several projects.
- Technical supervisor of Bachelor and Master students.
- Maintenance of company's profile on LinkedIn

Jun 2025 – Present

University Project Assistant with a doctorate - Part Time

Graz University of Technology Graz, Austria

- Cutting-edge research and education in the field of networked embedded systems, including the Internet of Things (IoT) and Cyber-Physical Systems.
- Co-supervision of doctoral candidates and students in the context of research work.
- Coordination of research activities between the institute and external research centers

Jan 2020 – Dec 2022

Safety software developer - Part time

Siemens AG Graz, Austria (3 yr)

- Develop new approaches and techniques to improve functional safety, availability, and maintainability in Siemens fail-safe devices.
- Collect and analyze safety-related data from safety-critical devices.
- Development and maintenance of the safety-critical embedded firmware.

- Oct 2016 – Nov 2017 **Embedded System Software Engineer**
ProSolTech d.o.o. 71000 Sarajevo, BA (1 yr 7 mos)
 - In cooperation with HIMA Paul Hilderbrandt GmbH (DE) and University of Kassel (DE).
 - Developing, maintaining, and testing code for safety-critical embedded systems.
 - Development of IoT devices for smart houses (smart outlets, smart switches, smart windows, ...)
- Mar 2015 – Oct 2016 **Safety Hardware Engineer**
ProSolTech d.o.o. 71000 Sarajevo, BA (1 yr 3 mos)
 - PCB Layout designs (up to 12 layers).
 - Development of IoT devices for smart houses (smart outlets, smart switches, smart windows, ...)
 - Programming and testing of failsafe programmable devices developed by HIMA Paul Hildebrandt GmbH, DE
- Jun 2016 – Nov 2017 **Technical Support - external associate**
NYSORA inc. New York, USA (1 yr 3 mos)
 - Technical consulting for developing educational models/simulators for practicing anesthesiology.
 - Developments and maintenance of the website and Android applications.
- Jul 2014 – Mar 2015 **Control and Development Engineer**
Spica Systems International 71000 Sarajevo, BA (9 mos)
 - Development and maintenance of automated parking systems (Atmel microcontroller and Schneider PLCs), SCADA systems as well as installation of IT networks.
 - Maintenance and installation of systems for time attendance and access control systems (card readers, fingerprint readers, controllers, bar-code printers).
 - Project and team management as well as business development.

EDUCATION

- Jan 2018 – May 2023 **PhD degree in Information and Communications Engineering**
 Graz University of Technology, Institute of Technical Informatics
 Topics of interest: Functional safety, Sensor Faults detection, Embedded system, Fail-safe, Time series analysis, Data processing, Machine learning
 Dissertation topic: **"Predictive Failsafe: Advanced services for safety architectures"**
- 2012 – 2014 **Master's degree in Automatic control and Electronics**
 University of Sarajevo, Faculty of Electrical Engineering Bosnia and Herzegovina
 - **Master thesis:** Development of SCADA system based on the OPC standard with client application created in Visual Studio
 - Control systems (Linear, nonlinear, digital, optimal, intelligent), Robotics, Embedded Systems, Electronics, Sensors and Actuators, System design, analog, and digital signal processing... More information on Bachelor degree program
- 2005 – 2008 **Bachelors's degree in Automatic Control and Electronics**
 University of Sarajevo, Faculty of Electrical Engineering Bosnia and Herzegovina
 - **Bachelor thesis:** Ultrasonic sensors - physical background and appliances.
 - SCADA Systems, mechatronics, actuators, analog and digital electronics, power electronics, signal processing...More information on Master degree program
- Other courses:** Functional Safety According to ISO 26262 Crash Course; Intro to Automotive functional safety(ISO26262); Computer Vision of Raspberry Pi; Computational Intelligence; Software testing for safety critical systems; The complete graphic design theory; The data science course; How to deal with patents and innovations; Safety and security; Leadership and management in the praxis; Teaching in English: presenting in class; Scientific writing and presenting, Project management (Primas Consulting GmbH)...

ADDITIONAL SKILLS

Languages	• Bosnian/Croatian/Serbian – Native speaker • English* – Listening: C1 Reading: C1 Writing: C1 • German* – Listening: B2 Reading: B2 Writing: B2 *self-assessment
Soft skills	• Communication • Teamwork • Problem finding and solving • Adaptability • Critical thinking • Multitasking • Creativity • Graphical Design and Arts • Image and Video editing • Academical writing and presenting • Supervisory (MSc and BSc students) • Project management
Verified Certificates	Functional safety manager • Issued by ECQA (European Certification and Qualification Association), Certificate No: ECQA-11204-2743 Project Manager level D • Issued by Project Management Austria in accordance with IPMA: International Project Management Association standards Sicherheitsvertrauensperson • Issued by BFI Steiermark (Dec 2024)

ADDITIONAL INFORMATION

Driving licence	B category
Citizenship and Nationality	Bosnia & Herzegovina
Residence and working permit in Austria	YES: "Daueraufenthalt EU" - Karte
Family Status	Married (2 kids)

APENDIX: PUBLICATIONS AND PROJECTS

PUBLICATIONS

- 2025 **V-Models: LLMS for the Development Lifecycle of Safety-Critical Systems**, A Jelidi, A Kajmakovic, A Palmisano, F Sentobe, K Romer 2025 IEEE 36th International Symposium on Software Reliability Engineering - Best paper Award
- 2025 **Progress Of Industrial Revolutions – Reality Check For Bosnia And Herzegovina** A Kajmaković, B Durkić, S Avdić 27th International Scientific Conference Economic Competitiveness and
- 2025 **Achieving Economic Sustainability via Low-Cost Automation Techniques: A Novel Study** M Brillinger, F Lackner, MA Hadi, K Diwold, A Kajmakovic, S Manfredi, EAI International Conference on Management of Manufacturing Systems, 111-123.
- 2023 **Fault Diagnosis and Isolation Prediction for Redundant Relays based on Discrepancy Analysis** The 13th IEEE International Conference on Power, Energy and Electrical Engineering (CPEEE 2023) Tokyo, Japan
- 2022 **Journal: Degradation Detection in a Redundant Sensor Architecture.** - MDPI Journal Sensors (14248220).
- 2022 **Journal: Toward Flexible and Cognitive Production - Addressing the Production Challenges** - Applied Science (14248220), 22(12).
- 2022 **IOT as enabler of workers' stress detection in manufacturing systems of the future.** - The 11th Conference on the Internet of Things: IoT 2022.
- 2021 **Journal: Challenges in Mitigating Errors in 1oo2D Safety Architecture with COTS Micro-controllers** - The International Journal on Advances in Systems and Measurements
- 2020 **Challenges in Mitigating Soft Errors in Safety-critical Systems with COTS Microprocessors** - The Tenth International Conference on Performance, Safety and Robustness in Complex Systems and Applications, PESARO 2020
- 2020 **Flexible Soft error Mitigation Strategy for memories in mixed-critical systems** - IEEE International Symposium on Software Reliability Engineering Workshops (ISSREW2019)
- 2020 **Creating Awareness in Embedded Systems-A Usecase for PLCs** - The 9th International Conference on the Internet of Things, IOT2019
- 2019 **Predictive Fail-Safe Improving the Safety of Industrial Environments through Model-based Analytics on hidden Data Sources**,Kajmaković The 13th IEEE International Symposium on Industrial Embedded Systems (SIES)

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