# Mikhail Smolin

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## Professional Experience

04/2020 - Lead Software Architect, full-time, IT Communication & Legal

Present Mercedes-Benz Group AG, Stuttgart, Germany

- Technical leadership and execution of full lifecycle digitization and automation IT projects.
- Vendor management to ensure adherence to budget, schedule, and scope on project level.
- Responsible for understanding client's requirements and delivering solution architectures.
- Benchmarking and identification of tech innovations for internal and external stakeholders.
- Further development of the group-wide eDiscovery, data protection and legal IT landscape.
- Endorse investigation and compliance processes along legal requirements at headquarters.

07/2019 - **Senior IT Architect**, *full-time*, Powertrain Production & Data Analytics 03/2020 Daimler AG, Stuttgart, Germany

- Supported driving digital transformation efforts across the broader powertrain landscape.
- Analyzed processes and requirements with international cross-departmental professionals.
- Collaborated with teams across production plants, to help and define the user experience.
- Approved implementations, supported and coordinated developers and external partners.
- Support of IT at international locations, especially within the scope of piloting new APIs.
- Participated in various work packages of complex cross-plant strategic Daimler IT projects.

02/2017 - **Software Engineer**,  $\mathit{full-time}$ , UI & Web Solutions

06/2019 EXXETA AG, Stuttgart, Germany

- Lead an international, distributed workforce according to Scrum in an agile project setup.
- Full-stack Web and mobile development for major automotive OEMs and Tier 1 suppliers.
- Interpersonal communication in cross-cultural project teams across different time zones.
- Planned, directed, and coordinated all aspects of project activities within the work team.
- Managed budget and personnel matters including tracking and reporting to stakeholders.
- Collaborated with external service providers to develop long-term strategic partnerships.

#### Education

09/2023 - **Doctor of Philosophy**, Computer Science

Present Kyrgyz State Technical University, Bishkek, Kyrgyzstan

- Research in the field of machine learning, cybersecurity, and intrusion detection systems.
- Proposing a novel ensemble deep neural network learning model for intrusion detection.
- Implementation and empirical analysis of models with respect to real network traffic data.
- Publication of findings and insights in internationally leading conferences and journals.
- Contributions to teaching, administration and acquisition of research funding.

03/2014 - Master of Science, Computer Science and Media, Ø1.3

01/2017 Stuttgart Media University, Stuttgart, Germany

- Thesis ( $\varnothing 1.0$ ): Anomaly-based intrusion detection for automotive networks
- I proposed the applicability of detecting cyberattacks on the vehicular CAN bus standard.
- Using network recordings of a modern sedan, a neural network was trained and evaluated.
- Courses: Machine learning, information privacy, secure systems, agile project management.

09/2015 - Master of Science, Advanced Computer Systems Development, Erasmus Grant

02/2016 University of the West of Scotland, Glasgow, Scotland

- I attended courses in data mining, cybersecurity, signal processing, and proficiency English.
- Implementation of an Android car diagnostics tool from in-vehicle sensor data using Java.
- Project: Mobile car diagnostics and performance app from in-vehicle OBD-II sensor data.
- 10/2010 Bachelor of Science, Business Informatics, Ø2.3

02/2014 Ansbach University of Applied Sciences, Ansbach, Germany

- Thesis ( $\varnothing 1.0$ ): »Version verification of HIL test sequences in car ECU manufacturing «
- In cooperation with Robert Bosch GmbH (Bosch Automotive Electronics), I developed a group-wide Java desktop application in order to provide mechanical and software engineers a tool for analyzing and verifying automotive electronic stability program test sequences.
- Courses: Business economics and management, big data, software engineering, IT security.

#### **Publications**

[1] M. Smolin, "GenCoder: A Generative Al-based Adaptive Intra-Vehicle Intrusion Detection System," *IEEE Access*, pp. 1–1, 2024. https://doi.org/10.1109/ACCESS.2024.3476177.

### Languages

German CEFR C2 Native Speaker

English CEFR C1 Advanced

Russian CEFR B1 Intermediate

Mandarin CEFR A1.1 Beginner

#### Computer skills

Programming Matlab, Python Web HTML5, JavaScript, XML

Database MySQL, PostgreSQL IDE PyCharm, VS Code

Environment MS 365, DevOps, Jira, LaTeX OS Linux, macOS, Windows

#### Extra

International driving permit

M. Smolin

Stuttgart, October 18, 2024, Mikhail Smolin