

Dmitry Kochubey (Dmitrij Kočubej)

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About me:

Passionate about advancing robotics, artificial intelligence, and industrial automation, I enjoy transforming innovative technologies into practical solutions for real-world challenges. An engineering background combined with extensive industry experience enables me to bridge the gap between technical complexity and business value, translating sophisticated concepts into clear, engaging messages for customers, partners, and diverse audiences.

From concept development and project coordination to creating marketing content and technical documentation, I ensure every initiative is well executed and aligned with strategic business objectives. I have successfully planned, coordinated, and delivered exhibitions, product launches, technical presentations, training seminars, hackathons, and other technology-focused events.

Fluent in English, Czech, and Russian, I work professionally across all three languages and am currently expanding my language skills by learning German, Italian, and Turkish. Over the past 14 years, I have collaborated with international teams and spent 10 years working in multinational companies, developing strong cross-cultural communication skills and a global business perspective.

Experience:

Self-employed 2024-2026

Robotics & AI Researcher

- Integration of robotic systems (UGVs and UAVs) using ROS2-based architectures, enabling distributed communication, modular control and scalable multi-robot coordination
- Development and orchestration of simulation-to-reality (Sim2Real) workflows using NVIDIA Omniverse and Isaac Sim for validating autonomous behaviours in virtual environments
- Implementation and testing of autonomous navigation stacks, including path planning, localization and obstacle avoidance in both simulated and real-world environments
- Deployment and tuning of SLAM-based localization and mapping pipelines for mobile robotic platforms operating in dynamic indoor and outdoor environments
- Integration of legged robotic platforms (e.g. Unitree robots) with ecosystems for perception, control and autonomous navigation tasks
- Development of AI-driven perception and decision-making components using VLA (Vision-Language-Action) models to support context-aware robotic behaviour
- Integration of RAG pipelines for knowledge-enhanced decision support and contextual reasoning in robotic systems
- Implementation of VOSK-based speech recognition modules for human-robot interaction and voice-controlled system commands in field deployments
- Coordination of end-to-end system integration across perception, planning, control and communication layers in complex autonomous robotics architectures
- Contribution to multi-robot system design using ROS2 middleware, enabling scalable orchestration of autonomous agents
- Support in testing, debugging and validation of integrated autonomy stacks across simulation (Omniverse, Gazebo) and real-world deployments

Key areas of expertise and projects:

Industrial Automation (Project TORNADO — Industry 4.0):

Development of solutions to increase production line flexibility and enable high-precision manipulation of Small Soft Deformable (SSD) objects. Integration of AI systems to build a unified, safe Human-Robot Collaboration (HRC) environment that eliminates downtime and reduces costs during production line upgrades.

Link: <https://tornado-horizon.eu>

Autonomous Crisis Response Systems (Project TRIFFID):

Technical partnership within a consortium dedicated to creating a robotic reconnaissance platform. Designing coordination systems for Unmanned Ground Vehicles (UGVs) and Unmanned Aerial Vehicles (UAVs) to generate semantic maps of disaster zones and deliver visual analytics to operators via Augmented Reality (AR) devices.

Link: <https://triffid-project.eu>

Tools: Nvidia Omniverse, Isaac Sim, Gazebo, NAV2, SLAM, VLA, RAG, VOSK, Unitree robots, UGV, UAV, ROS2

**Siemens HQ
(DI FA)
2022-2024**

Marketing Manager for Electric Vehicle Charging Stations and Markets of the Future

- Creating a Global 4C Strategy
- Development and implementation of an international marketing strategy for plant automation products focused on specific groups
- Organization and conduct of presentations, training sessions, webinars. Presentations for customers and distributors
- Annual marketing planning in coordination with verticals, other business units (BUs) and advertising consultants
Includes: situation analysis, objectives, target group analysis, market environment inclusion, competitor analysis, trend analysis, marketing tools, distribution channels, strategic market positioning and coordinated actions in countries
- Planning, coordination and definition of marketing and communication measures
- Preparation of advertising content for the relevant target groups. Challenger sales
- Competitor monitoring and preparation of competitor information for distributors
- Project management of cross-BU marketing teams, e.g. for uniform participation in trade fairs

Tools: Salesforce, Path Factory, PowerPoint and other MS Office applications, Tableau, corporate design tools

**Siemens HQ
(DI FA)
2018-2022**

Digitalization Engineer

- Implementation of digital strategies and solutions. Integration of operational and information technologies. Support for business digitalization modules - "Virtual commissioning" and "Digital production"
- Development and implementation of innovative solutions in the field of automation (virtual commissioning, cloud platforms, autonomous mobile robots, digital twins)
- Planning and conducting product training and seminars
- Customer support at trade fairs
- Conducting presentations, training seminars, webinars
- Interaction with universities, mentoring students, conducting bachelor's and master's theses
- Support for EMEA Centers of Excellence ([AMEC](#), [Impulse](#), [Impact](#))
- PLC programming
- Simulation

Tools: SIMATIC S7-1500/S7-1200, SINAMICS Drives, NX MCD, Amesim, Tecnomatix Plant Simulation, PLCSIM Advanced, TIA portal, Simove and other Siemens products, Unity, AR/VR applications, HoloLens, HTC Vive, Visual Studio, Team Foundation Server, git, PyCharm, AWS (Amazon cloud), Azure, Matlab, ROS 1/2 (Robotic operation system), PowerPoint and other MS Office, VMware applications (Workstation, ESXi), protocols TCP/IP, OPC UA/DA, Modbus, MQTT, SQL,

Programming languages: Python, C#, C++, SCL

**LCM AT
Linz Centre of
Mechatronics
2018**

Research and Development of Indoor Positioning Systems (Researcher & Developer)

- Development of embedded systems
- Development and implementation of solutions with a scalable architecture
- Programming, firmware development
- Simulation
- Inertial Measurement Unit Data Processing, Pattern Detection

Link: <https://www.youtube.com/watch?v=ITpufi41zkY>

Tools: System Workbench for STM32, CubeMX, Eclipse, IAR, Ultra-wideband (UWB) chip DW1000, STM32 microcontrollers, Raspberry PI micro PC, Matlab, Inertial Measurement Unit (IMU), gitlab, PyCharm, UDP data exchange protocol for debugging, SPI, I2C, UART TTL interfaces
Programming languages: Python, C++

TUL Institute for Nanomaterials, Advanced Technology and Innovation 2015-2017

Research and development of IoT (Internet of Things) platform Skoda2Go for Skoda Auto (Project Manager)

- Full-stack development (user interface, business logic)
- Development of embedded systems
- Development and implementation of solutions with a scalable architecture
- Reverse Engineering
- Prototyping and testing
- PCB & Wiring Diagram Design

Project examples:

Skoda2GO Pilot Project (Later renamed to Skoda KLIQ) for SKODA AUTO DigiLab:

Development of a smartphone-controlled corporate carsharing service that transforms mobile devices into virtual keys, enabling keyless fleet management, automated mileage logging, and flexible vehicle sharing for both business and private employee use.

Link: <https://www.skoda-storyboard.com/cs/tiskove-zpravy-archiv/skoda-auto-digilab-uvadi-sluzbu-kliq-pro-snadne-sdileni-sluzebnich-vozu/>

Development of Autonomous IoT Devices for BEDNAR FMT s.r.o.:

Engineering and deployment of self-contained Internet of Things (IoT) hardware units designed to monitor, collect, and analyze operational data from towed and suspended agricultural machinery.

Tools: System Workbench for STM32, CubeMX, ASP .NET, MVC, Open Street Maps, Bootstrap, jQuery, Visual Studio, Team Foundation Server, GPS modules, GSM modules, STM Microcontrollers, RFID readers, interfaces CAN, SmartGate, XML, JSON

Programming languages: C++, C#, JS

Technical University of Liberec 2014-2024

Researcher in the field of human-robot interaction in physical terms | IoT Device Team Lead | Project Manager

- Capacity planning
- Define working packages and solution architecture
- Prototype implementation and testing
- Meet tight deadlines
- Reporting

Tools: MindJet, MindManager, PowerPoint and other MS Office applications, Matlab

Sinetik CJSC 2011-2013

Industrial Software Developer

Software development, installation, and commissioning of cranes and lifting systems, alongside certified service support for Siemens products. Successfully delivered more than 20 industrial crane and lifting system projects tailored for hydroelectric and nuclear power plants, metallurgical facilities, and logistics centers.

Project examples:

- Casting crane 180 60 20t for HCMC (Evraz ZSMK)
- Gantry crane 1 150 15 5 t. for Bratsk HPP
- Gantry crane 2 450 100 t. for Volzhskaya HPP

Tools: Starter, Drive ES, SIMATIC Manager, SIMATIC S7-300/S7-400, SINAMICS Drives, MICROMASTER Drives, Field PG, interfaces Profibus, Profinet, USB-MPI Adapter

Education:

Technical University of Liberec

*thesis not defended

PhD Candidate Specialization in Technical Cybernetics

- Autonomous mobile robots
- Machine Learning (ANN, RNN, CNN, Q-Learning)
- Machine Vision (OpenCV)
- Physical human-robot interaction
- SLAM navigation
- Mathematical modeling

Tools: Matlab, Simulink, Python, C#, ROS

Technical University of Liberec

Master of Engineering Specialization in Mechatronics, Artificial Intelligence and Machine Vision

- Automation control theory
- Neural networks
- Digital signal processing
- Machine Vision
- Networking
- Teleoperation and human robot interaction

Tools: Matlab, DataEngine, Simulink, C#, Inventor, OpenGL

Hochschule Zittau/Görlitz

Exchange studies Specialization in Mechatronics, Artificial Intelligence and Machine Vision

Novosibirsk State Technical University

Master of Technical Sciences Specialization in Electrical Engineering, Electromechanics and Electrical Technology

- Economics
- Economics and management at the enterprise
- Automation control theory
- Microelectronics and Microprocessor Technology
- Digital signal processing
- Numerical methods
- Computer-aided design of electrical devices
- Theoretical foundations of electrical engineering
- Relay protection and automation of electric power systems

Tools: Matlab, MathCad, Autocad, SEW/Danfoss/Siemens drives

Novosibirsk State Technical University

Bachelor of Engineering Specialization in Automation and Electric Drive

- Automation control theory
- Power electronics
- Microelectronics and microprocessor technology
- Digital signal processing
- Theoretical and applied mechanics
- Power supply
- Power plants and substations
- Power systems and grids
- Electromagnetic compatibility in the electric power industry

Tools: Matlab, MathCad, Autocad, SEW/Danfoss/Siemens drives