PERSONAL INFORMATION

Michal Gregor

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Gender M | Date of birth 31/03/1987 | Nationality Slovak

WORK EXPERIENCE

International Secondments

2024 *Deutsches Forschungszentrum für Künstliche Intelligenz (DFKI)*, Saarbrücken, Germany, 2 weeks; Horizon Europe project DisAI.

Multi-lingual claim matching and fact-check retrieval.

2019 *University of Strathclyde*, Glasgow, UK, 3 months; H2020 project SENSIBLE.

Deep learning, binary classification of parking spaces using synthetic data.

2018 – 2019 *University of California, Berkeley*, USA, 6 months; visiting scholar.

BAIR (Berkeley Artificial Intelligence Research) laboratory, HART (Human-Assistive Robotic Technologies) laboratory; human driver modeling, psychoacoustic aspects of driving, deep reinforcement learning for decreasing psychoacoustic annoyance.

2018 *Tongji University*, Shanghai, China, 2 months; H2020 project SENSIBLE.

Deep learning, binary classification of parking spaces, visual detection of vehicles in parking lots, usage of imperfectly annotated data.

2013 *University of Patras*, Greece, 3 months; PhD. Erasmus.

PhD. Erasmus stay: research in the area of motivated reinforcement learning, artificial neural networks and fuzzy cognitive maps under the supervision of prof. Peter Groumpos.

2023 – ... Researcher – Expert

Kempelen Institute of Intelligent Technologies:

- Language models and multi-modal learning;
- DisAI: "Improving scientific excellence and creativity in combating disinformation with artificial intelligence and language technologies". HORIZON-WIDERA-2021-ACCESS-03-01 - Twinning: 101079164;
- ...

2021 – 2023 Associate Professor

Department of Control and Information Systems; University of Žilina;

2017 – 2025 Researcher

Institute of Competitiveness and Innovations:

- Teach4Edu: Accelerating the transition towards Edu 4.0 in HEIs; Erasmus+; KA203 Strategic Partnerships for higher education.
- KEGA 008ŽU-4/2021: Integrated Teaching for Artificial Intelligence Methods at the University of Žilina.
- Innovative autonomous logistic vehicle, NFP313010P904.
- Coordination of the Laboratory of Artificial Intelligence of the University of Žilina (LUIZA).
- Research work in the area of machine learning and artificial intelligence methods.
- VEGA 1/0938/16: An adaptive system of internal logistics (ASIL).
- ...

2014 – 2021 Researcher

Department of Control and Information Systems; University of Žilina:

- VeHICaL – Verified Human Interfaces, Control, and Learning for Semi-Autonomous Systems (National Science Foundation, USA; participated as a part of “UNIZA – UC Berkeley - College of Engineering scholarship program with funding support of the Deputy Prime Minister’s Office for Investments and Informatization of the Slovak Republic”).

- Development project 002ZU-2-1-2021: Hybrid Education in the area of artificial intelligence, machine learning and cybernetics at UNIZA.
- KEGA 014ŽU-4/2018: Broadening the content in a field of study with respect to the current requirements of the industry as regards artificial intelligence methods and IT (*deputy project leader*).
- H2020-MSCA-RISE-2016, 734331: SENSIBLE – SENSors and Intelligence in BuiLt Environment.
- KEGA 038ŽU-4/2017: Laboratory methods of teaching automatic identification and localization using radio-frequency identification technology.
- APVV-16-0006: Automated robotic assembly cell as an instrument of concept Industry 4.0 (*project coordinator for the University of Žilina*).
- KEGA 010ŽU-4/2013: Modernization of didactic equipment and teaching methods with a focus on the area of robotics.
- VEGA 1/0453/12 Study of interactions of a motor vehicle, traffic flow and road.
- ...

2014 – 2016 Professional Employee

University Science Park; University of Žilina:

- The University Science Park of the University of Žilina. ITMS 26220220184.

2011 – 2014 Research, PhD. Study

Department of Control and Information Systems; University of Žilina:

- KEGA 010ŽU-4/2013: Modernization of didactic equipment and teaching methods with a focus on the area of robotics.
- VEGA 1/0453/12 Study of interactions of a motor vehicle, traffic flow and road.
- Centre of excellence for systems and services of intelligent transport. University of Žilina. ITMS 26220120028, ITMS 26220120050.
- New methods of measuring physical dynamic parameters and interactions of motor vehicles, in cooperation with Betamont, s.r.o. ITMS: 26220220089.
- Activity 1.3 Centre of telematic systems at the University of Žilina, project Research Center of Traffic Telematics. Coordinator: BETAMONT s.r.o. ITMS: 26220220169.

2006 – 2014 Research, UKaI

Institute of Competitiveness and Innovations; University of Žilina:

- Development of a voice control system.
- VMROS – Development of modular mobile robotic systems, investigator of activity 2.1 “Design and optimization of modular robotic configurations in virtual reality”. 054/2009/2.2/OPVaV.
- ZATIPS – Competence Center for Knowledge technology innovation of production systems in industry and services. ITMS: 26220220155.

EDUCATION

2011 – 2014 PhD.; Automation — EQF 8

University of Žilina, Faculty of Electrical Engineering.
Department of Control and Information Systems.
Topic: Control System of an Autonomous Robot for Solving Multi-objective Tasks.
Field of study: Automation. Study programme: Process Control.

2009 – 2011 Master’s Degree; Automation — EQF 7

University of Žilina, Faculty of Electrical Engineering.
Department of Control and Information Systems.
Topic: Applications of Artificial Intelligence Methods to Design and Control of Robotic Systems.
Field of study: Automation. Study programme: Process Control.

2006 – 2009 Bachelor’s Degree; Automation — EQF 6

University of Žilina, Faculty of Electrical Engineering.
Department of Control and Information Systems.
Topic: Systém rozpoznávania reči (A Speech Recognition System).
Field of study: Automation. Study programme: Safe Process Control.

HONORS

2023 Honorary member of the National Centre of Robotics.

2023 Honorary member of the Department of Control and Information Systems of the University of Žilina.

2019 Rector's award for international cooperation.

2011 Prize of the deparment head for a thesis with a significant contribution to the development of the field of automation at the department.

2009 Dean's prize for excellent academic performance.

SERVICE TO THE COMMUNITY

2025 Co-organizer of the SemEval 2025 Shared Task "Multilingual and Crosslingual Fact-Checked Claim Retrieval"; https://semeval.github.io/SemEval2025/tasks.html.

2025 Co-organizer of a workshop at RANLP 2025: "Advancing NLP for Low-Resource Languages (LowResNLP 2025)" https://ranlp.org/ranlp2025/index.php/workshops/.

2021 – ... Member of the executive board of association AI4SK https://www.ai4sk.sk/.

2019 Founding of the Laboratory of Artificial Intelligence of the University of Žilina (LUIZA) http://luiza.uniza.sk.

2019 National strategy: Cooperation on the preparation of the *Slovak national strategy for artificial intelligence* with Slovak.AI.

2019 – 2022 Co-organizing the annual Machine Learning Summer School at the University of Žilina http://mlss.sk.

2014 – ... Reviewer Applied Soft Computing, Computing and Informatics, ICANN, ELEKTRO, TRANSCOM, C&I, ...

Boards of Journals

2018 – ... Journal "Applied Computer Science" editorial board ISSN 2352-6977; http://acs.pollub.pl.

2018 – 2021 Journal "Enterprise Management" editorial board ISSN 1643–4773; http://www.zp.ptzp.org.pl/kolegium-redakcyjne/.

Conference Committees

2025 Conference "SemEval 2026" programme committee; https://semeval.github.io/SemEval2026/.

2025 Conference "ECAI 2025" programme committee; https://ecai2025.org/.

2021 Conference "ICANN 2021" programme committee.

2018 Conference "Cybernetics & Informatics 2018" programme committee.

2018 Conference "ELEKTRO 2018" organizing committee.

2017 Conference "EAN 2017" programme committee.

2017 Conference "Technologické fórum – Špindlerův mlýn 2017" scientific committee.

Organization of Events

2023 – 2025 NLP Schools; introduction to natural language processing as a series of lectures and hands-ons.

2023 – 2025 SciTea workshops; half-day of lectures interspersed with tea and chats given for students by young researchers.

2019 – 2023 Seminars of the LUIZA lab; organizing regular scientific seminars.

2019 Visit of prof. Ruzena Bajcsy in Slovak Republic, Žilina, Bratislava: 28th – 31st July 2019 in cooperation with STU BA and ESET Science Awards.

PERSONAL SKILLS

Mother tongue Slovak

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
	Cambridge CAE C1				
English	C1	C2	C1	C1	C2
German	A2	A2	A2	A2	A2

Certificates (English)
- **C1:** University of Cambridge ESOL Examinations – Certificate in Advanced English; Grade B; 2005;
- **B2:** Slovak Republic's basic state examination in English language; 2005;
- **C1–C2:** Slovak Republic's state examination in English language, specialization: natural science; 2006;

research skills
- Deep learning;
- Large language models;
- Reinforcement learning, deep reinforcement learning;
- Metaheuristic methods;
- Decision trees, ensembles;
- ...

computer skills
- Languages: Python, C++, JavaScript, Matlab/Octave, C, PHP, Visual Basic; ...
- Markup: LaTeX, Markdown, HTML, CSS, XML; ...
- OS: Linux, Windows.
- Tools: PyTorch, Tensorflow, Keras, Scikit-learn, Pandas, Seaborn, RapidMiner, ...

driving licence B1, B, AM

TEACHING

- Machine Learning – lectures, seminars (Summer '2023).
- Artificial Intelligence 1 – labs and selected lectures (Summer '2016 – '2022).
- Computer Vision – lectures, labs (Winter '2022).
- Fundaments of Data Analysis – lectures, seminars (Winter '2022).
- Artificial Intelligence – labs (Winter '2022).
- Artificial Intelligence 2 – labs (Winter '2016, '2017).
- Artificial Intelligence – seminars and labs (Summer '2011 – '2015).

SUPERVISION

PhD. Students

2025 – ... Kristína Okasová. Topic: Addressing the Limitations of Large Language Models.

Interns @KInIT

2025 Tomáš Majerčík. Student of the Slovak Technical University in Bratislava, interning at KInIT; Topic: Adaptation of large language models to low-resource languages using insights from mechanistic interpretability.

2024 Pavol Kebis. Graduate of the Commenius University in Bratislava and University of Oxford, interning at KInIT; Topic: Efficient adaptation of large language models to low-resource languages.

2024 Kristína Sásiková. Student of the Commenius University in Bratislava participating in the DisAI Replication Challenge; Topic: Replicating paper Scaling Sentence Embeddings with Large Language Models.

2023 Michael Pavlík. Intern from Tilburg University; Topics: unsupervised reasoning and self-correction in LLMs.

Interns @UNIZA

2022 Gaétan Becker. Intern from Télécom SudParis. Topics: deep learning architectures for predicting a quantity from other data during sensor outage.

2017 – 2020 Daniel Adamkovič. Intern from UNIZA. Topics: machine learning, deep learning, reinforcement learning, ...

2019 Sylvain Courty. Intern from Université d'Angers. Topics: probabilistic generation of synthetic data for visual object detection.

Master's Degree Theses

2021/2022 Marek Michálek: Practical Exercises for Teaching Artificial Intelligence and Machine Learning (In Slovak: Praktické cvičenia na výučbu umelej inteligencie a strojového učenia).

2020/2021 Daniel Adamkovič: Realizing walking for a walking robot using deep reinforcement learning (In Slovak: Realizácia kráčania pre kráčajúceho mobilného robota pomocou hlbokého učenia s odmenou).

2020/2021 Andrej Kováč: Estimating a customer's evaluation using sentiment analysis of textual comments (In Slovak: Odhad zákazníckeho hodnotenia na základe analýzy sentimentu slovných komentárov).

2019/2020 Martin Vít: Speech Recognition using Deep Learning Methods (In Slovak: Rozpoznávanie reči pomocou metód hlbokého učenia).

2018/2019 Martin Vojtyla: Solving Scheduling Problems using MiniZinc (In Slovak: Riešenie rozvrhovacích problémov pomocou nástroja MiniZinc).

2017/2018 Lukáš Slováček: Simulation of Traffic and its Control using SUMO (In Slovak: Simulácia dopravy a jej riadenia pomocou nástroja SUMO).

2017/2018 Matej Lokaj: Grammar Checking based on Recurrent Neural Networks (In Slovak: Kontrola pravopisu na báze rekurentných neurónových sietí).

2016/2017 Jakub Hanes: Reinforcement Learning (In Slovak: Učenie s odmenou).

2016/2017 Juraj Kindernay: Rebuilding of the graphical user interface for the Fuzzylite library (In Slovak: Prestavba grafického užívateľského rozhrania pre knižnicu Fuzzylite).

2015/2016 Dávid Bujňák: Implementation and Solution of a Planning Problem (In Slovak: Implementácia a riešenie plánovacieho problému).

2013/2014 Michal Jombík: Chatbot Systems (In Slovak: Chatbot systémy).

Bachelor's Degree Theses

2021/2022 Erik Dobeš: Controlling a Balancing Robot with the Support of Artificial Intelligence Methods (In Slovak: Riadenie balansujúceho robota s podporou metód umelej inteligencie).

2020/2021 Adrián Huliak: Advanced Reinforcement Learning Methods in a Model Problem (In Slovak: Pokročilé metódy učenia s odmenou na modelovom probléme).

2018/2019 Andrej Kováč: Scraping Information from the Web and Summarizing it in a Formatted Output (In Slovak: Scraping informácií z web-u a ich sumarizácia vo formátovanom výstupe).

2017/2018 Martin Vít: Implementation of Artificial Players for 2048 (In Slovak: Implementácia umelých hráčov pre hru 2048).

2015/2016 Lukáš Slováček: Chatbot Systems (In Slovak: Chatbot systémy).

CONSULTATION OF THESES

Master's Degree Theses

2023/2024 Mário Michálik: Application of Neural Networks and Machine Vision in Quality Control on Dedicated Edge Devices (In Slovak: Aplikácia neurónových sietí a strojového videnia pri kontrole kvality na dedikovaných Edge zariadeniach). Supervisor: Ing. Ján Rofár, PhD.; Ing. Emília Bubeníková, PhD.

2017/2018 Michal Kubica: A Robotic Workplace for Washing Machine Assembly (In Slovak: Robotizované pracovisko montáže automatickej práčky). Supervisor: Ing. Anton Tomáš.

2015/2016 Vladimír Cingel: Visualization and Control of a Virtual Industrial Robot (In Slovak: Vizualizácia a riadenie virtuálneho priemyselného robota). Supervisor: Ing. Tomáš Michulek, PhD.

2015/2016 Lukáš Hrčka: A Monitoring System for an Automated Industrial Logistic System (In Slovak: Monitorovací systém autonómnej podnikovej logistiky). Supervisor: Ing. Tomáš Michulek, PhD.

2015/2016 Miloš Kapišovský: Control of an Industrial Robot using a PLC Controller (In Slovak: Riadenie priemyselného robota prostredníctvom PLC automatu). Supervisor: Ing. Peter Marčan.