Ilya Misyura

Research Associate

Research software engineering · Applied AI

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Research Associate at FHNW combining applied AI and research software engineering with cybersecurity and data protection. Develop multilingual RAG/GraphRAG-based pipelines and full-stack applications, alongside product ownership, university teaching and thesis supervision. Voluntary engineering work spans onboard computer vision and connected systems. Candidate of Sciences in Applied Mathematics (PhD-equivalent).

EXPERIENCE

FHNW

Basel, Switzerland

University of Applied Sciences Northwestern Switzerland
Center for Digital Trust FHNW

Research Associate — Feb 2026 – present

Research Assistant — Jul 2022 – Jan 2026

Research & development

360TrustUp (Innosuisse). Develop an AI pipeline for general cybersecurity and data-protection assessment using RAG, LLM and workflow engineering.

LeadAI (Eurostars). Full-stack development of a multilingual GraphRAG knowledge-management system within an AI-driven digital transformation portal (Nuxt/Typescript, FastAPI/Python, Postgres).

Digital Trust Radar (FHNW Stiftung). Ownership and development of a platform to support organisations with AI governance and ethics landscape (Next.js/TypeScript, Payload CMS, MongoDB).

Community-in-Health (Innosuisse). Product ownership (healthcare internal community platform), web development (PHP, SASS) and deployment workflows (Docker, GitLab CI/CD) for a research project with a Swiss rehabilitation clinic.

MECyS (Erasmus+); Geiger (HORIZON). Development of cross-platform and web-based educational tools for cybersecurity and data-protection education (JavaScript, Dart/Flutter).

Network automation (Innosuisse). Software and web development of automated network explorer (Python, JavaScript, PHP).

Teaching & supervision

BSc and MSc programmes

AI security — theory and hands-on labs (MSc Business Information Systems)

Cryptography — theory and hands-on labs (BSc Business Information Technology)

Cybersecurity — theory and hands-on labs (MSc Medical Informatics)

Research Methods for Information Systems — coaching, supervision (MSc Business Information Systems)

Decentralized autonomous organizations (DAOs) — hands-on labs (BSc Business Information Technology)

Business Process and Project Management — hands-on labs, coaching (BSc International Management)

Supervision of Bachelor’s and Master’s theses.

EARLIER EXPERIENCE

Dec 2019 – Feb 2022

Business Process Manager

Hochusobitake · Clothing brand · Kharkiv

Designed business-process automation architecture that reduced operational transaction-processing time by **approximately 60%.**

Implemented cloud ERP and task tracking; introduced and managed a project-management framework adapted from Scrum.

Developed and maintained the company’s online store.

Apr 2016 – Feb 2017

Software Developer

Sintez LLC · Rostov-on-Don · Contract

Led development of a cross-platform Qt GUI application for Windows and Android; developed a Windows console application for hardware communication through serial ports and internal network channels.

Refined internal network protocols and implemented data archiving and unarchiving algorithms.

Sep 2013 – Sep 2014

Backend Developer

Sintez LLC · Rostov-on-Don

Developed and tested PHP/SQL processing algorithms for an enterprise SaaS fuel-loyalty platform serving logistics companies; integrated and tested JavaScript components with front-end developers.

Sep 2012 – Aug 2013

Web Developer

Imaks-Web · Rostov-on-Don

Developed PHP backends for CMS-based websites; tested and improved JavaScript front-end components.

2007–2024

Professional Musician

Live performance, music production, mixing and mastering engineer, in parallel with academic and technical work.

TECHNICAL SKILLS

Applied AI. RAG, GraphRAG, LLM guardrails, AI workflow engineering, YOLO-based computer vision.

Programming. Python, TypeScript, JavaScript, PHP, Dart, C++, SQL.

Web and applications. FastAPI, Vue.js, Nuxt, React, Next.js, Payload CMS, Flutter, Qt, SASS, Tailwind CSS.

Data and APIs. PostgreSQL, MongoDB, GraphQL, Firebase, Supabase.

Deployment and systems. Docker, GitLab CI/CD, OS configuration and security, device fleet configuration and updates, cloud middleware and field-gateway integration.

Delivery. Product ownership, business-process automation, project management and adapted Scrum workflows.

EDUCATION

Candidate of Sciences in Applied Mathematics

PhD-equivalent · Southern Federal University, Rostov-on-Don
Aug 2012 – Sep 2015

Mathematical modelling, numerical methods and program complexes. Dissertation on piecewise-linear approximation of nonlinear signal-filtering models in discrete and continuous time, based on a randomized partition of the time interval; software implementation in C++/Qt.

Specialist in Applied Mathematics and Programming

Southern Federal University, Rostov-on-Don · Sep 2007 – Jun 2012

Five-year programme, BSc + MSc equivalent. Thesis on filtering random processes with jumps; excellent grade.

Digital Strategy Specialization. IBM & Darden · Online · 2024

COMMUNITY & TALKS

Research Software Engineering community. RSE Ambassador and active community member.

EnhanceR symposia. Delivered a talk on GraphRAG at the EnhanceR Online Symposium (May 2026). Scheduled speaker at the EnhanceR Symposium (30 November 2026).

SELECTED PUBLICATIONS

E-learning for micro-enterprises: New Swiss Federal Act on Data Protection. Misyura, I., Schneider, B. and Bühlmann, M. (2025). Proceedings of the International Conferences IADIS Information Systems 2025 and E-Society 2025, pp. 190–198. IADIS Press.

The Digital Trust Radar – A structured collection and analysis of global AI guidelines. Jäger, J., Karg, J., Asprion, P.M. and Misyura, I. (2025). AHFE international, 161.

Persona-oriented Data Protection Impact Assessment for Small Businesses. Schneider, B., Asprion, P.M., Misyura, I., Jonkers, N. and Zaugg, E. (2023). EPiC Series in Computing, 93, pp. 152–163.

Potentials of decentralized autonomous organizations: A conceptual model to address agency conflicts in traditional corporations. Lehner, R., Misyura, I., Schneider, B. and Asprion, P.M. (2023). CEUR Workshop Proceedings, 3645.

A case study on teaching decentralized autonomous organizations in a business school. Schneider, B., Moriggl, P., Misyura, I. and Rafiee, A. (2023). CEUR Workshop Proceedings, 3645.

LANGUAGES

English — full professional proficiency; German — limited working proficiency; Russian — native proficiency; Ukrainian — professional working proficiency.