

University Academic Curriculum Vitae

Personal information Elena Romanenko

Education since leaving school

- 2008, Bachelor of Applied Mathematics and Informatics with Honors, Perm State University (Russia);
- 2010, Master of Computational Science by Research with Distinction, University of Reading (UK);
- 2010, Master of Applied Mathematics and Informatics with Honors, Perm State University (Russia).

Present appointment

- PhD Candidate in Computer Science from 01.11.2020
- Free University of Bozen-Bolzano, KRDB research centre for Knowledge-based Artificial Intelligence, 36th PhD Cycle
- Title of the thesis:
Abstraction and Explanation of Ontology-Driven Conceptual Models

Professional experience

From / to	Job title	Name of academic Institution	Academic level	responsibilities
01.10.2007/ 21.07.2008	Junior Programmer	Information and Computing Systems, (Perm, Russia)	-	C# developer, development of CASE-system
15.09.2008/ 30.10.2010	Assistant Lecturer	Perm State University, Faculty of Mechanics and Mathematics (Perm, Russia)	Bachelor	Labs on course "Programming languages"
21.02.2011/ 31.08.2015	Assistant Lecturer	Saint-Petersburg State University, Faculty of Applied Mathematics and Control Processes (St. Petersburg, Russia)	Bachelor, Master	Lectures and labs on courses "Functional programming", "Discrete Mathematics", "Database Design"
01.06.2012/ 31.08.2012	Intern	Microsoft Research (Redmond, USA)	-	Data mining and language processing of large text collections
01.09.2015/ 01.07.2019	Senior Lecturer	Saint-Petersburg State University, Faculty of Applied Mathematics and Control Processes (St. Petersburg, Russia)	Master	Lectures and labs on courses "Machine Learning", "Data Mining", "Database Design"

Experience in academic teaching

- Certified qualification "Higher Education Teacher" (2013).
- Supervision at Bachelor and Master level in 2013-2017 (9 people) in the areas of Data mining, Machine learning, Natural language processing.
- About 9 years of academic teaching in universities.
- One of the developers of a master program "Database Technologies" (opened in 2014) at the Faculty of Applied Mathematics and Control Processes in St. Petersburg State University.

Other academic responsibilities

- One of the organizers of EDOC 2022 (Bolzano, 3-7 October 2022, UNIBZ)
- Program committee member of KESW 2013-2015, FOIS 2023-2024, DAO-XAI 2024

Memberships

Member of the Italian Association for Artificial Intelligence

Research and scholarships

- Ontology-driven conceptual models are typically regarded as a distinct type of conceptual models that leverages the semantics of foundational ontologies to provide a strong basis for modeling elements. Designed as tools for knowledge sharing, these models are expected to be extensively reused within their respective domains. However, studies indicate that understanding existing artefacts often poses challenges for users. We approached this problem from two perspectives: model abstraction and model explanation.

Date granted	Award Holder(s)	Funding Body	Title	Amount received
2008-2010	Elena Romanenko	BRIDGE Programme	British-Russian Project "BRIDGE" Scholarship	£15000
2020-2024	Elena Romanenko	Knut and Alice Wallenberg Foundation	PhD scholarship	€17000 per year

Publications

- Conference papers
 - Mozzherina, E. (2013). An Approach to Improving the Classification of the New York Times Annotated Corpus. In: Klinov, P., Mourontsev, D. (eds) Knowledge Engineering and the Semantic Web. KESW 2013. Communications in Computer and Information Science, vol 394. Springer, Berlin, Heidelberg. DOI: 10.1007/978-3-642-41360-5_7
 - * ◦ *Elena Romanenko*, Diego Calvanese, and Giancarlo Guizzardi (2022). "Abstracting Ontology-Driven Conceptual Models: Objects, Aspects, Events, and Their Parts". In: Proc. of the 16th Int. Conf. on Research Challenges in Information Science (RCIS). ed. by Renata S. S. Guizzardi, Jolita Ralyté, and Xavier Franch. Vol. 446. Lecture Notes in Business Information Processing. Springer, pp. 372–388. DOI: 10.1007/978-3-031-05760-1_22
 - *Elena Romanenko*, Diego Calvanese, and Giancarlo Guizzardi (2022). "Towards Pragmatic Explanations for Domain Ontologies". In: Proc. of the 23rd Int. Conf. on Knowledge Engineering and Knowledge Management (EKAW). ed. By Óscar Corcho et al. Vol. 13514. Lecture Notes in Computer Science. Cham: Springer, pp. 201–208. ISBN: 978-3-031-17105-5. DOI: 10.1007/978-3-031-17105-5_15
 - *Barcelos, P.P.F.*, Prince Sales, T., Fumagalli, M., Fonseca, C., Valle Sousa, I., Romanenko, E., Kritz, J., Guizzardi, G. (2022). A FAIR Model Catalog for Ontology-Driven Conceptual Modeling Research. In: Ralyté, J., Chakravarthy, S., Mohania, M., Jeusfeld, M.A., Karlapalem, K. (eds) Conceptual Modeling. ER 2022. Lecture Notes in Computer Science, vol 13607. Springer, Cham. DOI: 10.1007/978-3-031-17995-2_1
 - *Elena Romanenko*, Diego Calvanese, and Giancarlo Guizzardi (2023). "What Do Users Think About Abstractions of Ontology-Driven Conceptual Models?" In: Research Challenges in Information Science: Information Science and the Connected World. Ed. by Selmin Nurcan et al. Vol. 476. Lecture Notes in Business Information Processing. Cham: Springer Nature Switzerland, pp. 53–68. ISBN: 978-3-031-33080-3. DOI: 10.1007/978-3-031-33080-3_4

- Barcelos, P., Prince Sales, T., Romanenko, E., Almeida, J., Engelberg, G., Klein, D., Guizzardi, G. (2023). Inferring Ontological Categories of OWL Classes Using Foundational Rules. In: Formal Ontology in Information Systems, vol. 377. IOS Press. DOI: 10.3233/FAIA231122
- Romanenko, E., Kutz, O., Calvanese, D., Guizzardi, G. (2023). "Towards Semantics for Abstractions in Ontology-Driven Conceptual Modeling". In: Proc. of the ER 2023 Workshops – 9th Int. Workshop on Ontologies and Conceptual Modeling (OntoCom). Vol. 14319. Lecture Notes in Computer Science. Springer, pp. 199–209. ISBN: 978-3-031-47112-4. DOI: 10.1007/978-3-031-47112-4_19
- * ○ Romanenko, E., Calvanese, D., Guizzardi, G. (2024). ExpO: Towards Explaining Ontology-Driven Conceptual Models. In: Araújo, J., de la Vara, J.L., Santos, M.Y., Assar, S. (eds) Research Challenges in Information Science. RCIS 2024. Lecture Notes in Business Information Processing, vol 514. Springer, Cham. DOI: 10.1007/978-3-031-59468-7_3
- Journal articles in refereed academic journals
 - Prince Sales, T., Barcelos, P., Fonseca, C., Valle Sousa, I., Romanenko, E., Bernabé, C., Bonino da Silva Santos, L., Fumagalli, M., Kritz, J., Almeida, J., Guizzardi, G. (2023). A FAIR catalog of ontology-driven conceptual models. In: Data & Knowledge Engineering, vol. 147. DOI: 10.1016/j.datak.2023.10221.
 - * ○ Elena Romanenko, Diego Calvanese, and Giancarlo Guizzardi (2024). "Evaluating quality of ontology-driven conceptual models abstractions". In: Data & Knowledge Engineering 153, p. 102342. DOI: 10.1016/J.DATAK.2024.102342

**Language
competence**

Russian, native speaker
English, C1
German, B1
Italian, A2