

Kristina Šekrst, Ph.D.

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PhilPeople philpeople.org/profiles/kristina-sekrst
Google Scholar: scholar.google.com

Research Areas

Cognitive science, artificial intelligence, logic, philosophy of mind, philosophy of science, pragmatics and philosophy of language, astrobiology, computer science.

Education

Ph.D. in Logic 2015–2022

University of Zagreb, Faculty of Croatian Studies

Dissertation grade: *summa cum laude*

Thesis: *Logical Formalization of Evidentiality in Evidential Languages*, supervisor: Prof. Srećko Kovač, Ph.D.

Master's degree 2011–2014

University of Zagreb, Faculty of Croatian Studies

Major: Philosophy, research track

Master's degree 2009–2011

University of Zagreb, Faculty of Humanities and Social Sciences

Majors: Cognitive Linguistics, Comparative Linguistics, Croatian Language and Literature – linguistics track

Bachelor's degree 2006–2009

University of Zagreb, Faculty of Humanities and Social Sciences

Majors: Linguistics, Croatian Language and Literature

Data Mining Specialization 2015

University of Illinois at Urbana-Champaign (online)

Courses: Pattern Discovery, Clustering, Text Retrieval, Text Mining and Analytics, Data Visualization, with capstone project.

In progress: Master of Physics (Astrophysics with Space Science) 2024–

Open University, United Kingdom

Other: 100+ online courses – Coursera and edX

Certificates available upon request. Areas: computer science, astrophysics, neuroscience.

Work Experience: Academia

Adjunct Lecturer 2013–2024
University of Zagreb, Faculty of Humanities and Social Sciences
Teaching: *Ancient Egyptian Language and Script*

Adjunct Lecturer 2014/2015–2016/2017
University of Zagreb, Faculty of Croatian Studies
Teaching: *Philosophical Issues in Cosmology and Astrobiology* (with Tomislav Janović, Ph.D.)

Adjunct Lecturer 2019/2020, 2020/2021
University of Zagreb, Faculty of Croatian Studies
Teaching: *Academic Literacy*

Editorial Work

Philosophical Problems in Science 2025–present
Copernicus Center Foundation (WoS/Scopus, Q2)
Editor

Work Experience: Industry

Chief Engineering Officer 2022–present
Preamble, Pittsburgh (remote)
Development of prompt injection defenses, collaboration with United States Air Force.

Senior AI Engineer August 2025–present
Kadoa, Zurich (remote)
Evaluation and development of LLMs for web scraping and data extraction.

Lead AI Engineer December 2025–present
Meedan, San Francisco (remote)
Retrieval augmented generation, knowledge graphs + model fine-tuning.

Principal Engineer June 2025–August 2025
Littlebird.ai, New York (remote)
Agentic AI, retrieval augmented generation.

Consultant 2020–2022, sporadically 2022–present
planIT SCM, San Francisco Bay Area (remote)
Machine learning and software architecture for supply chain optimization and inventory control predictions.

Tech Lead 2018–2020
KnowIT, Zagreb
Development of inventory control systems and heuristic algorithms for NP-hard optimization

problems in supply chain.

Senior Web Developer

2015–2018

Visage Technologies, Zagreb

Face recognition, face tracking, and computer vision.

Books

1. Šekrst, K. (2025). *The Illusion Engine: The Quest for Machine Consciousness*. Cham: Springer Nature.
2. Skansi, S.; Šekrst, K. (2026, forthcoming). *Introduction to Deep Learning: Neural Networks, Large Language Models and Agentic AI*, 2nd Edition. Cham: Springer Nature.
3. Šekrst, K.; Uranić, I. (2014). *Staroeegipatski jezik: gramatika, pismo i lingvistički uvod* [in Croatian: Ancient Egyptian Language: Grammar, Script, and Linguistic Introduction]. Zagreb: Školska knjiga.

Publications

Peer-Reviewed Articles and Book Chapters

1. Šekrst, K. (2026, forthcoming). Astrobiology and the Transformation of Scientific Epistemology. In: S. J. Dick (ed.), *Astronomy and Philosophy: Conceptual and Methodological Foundations and Challenges*. Cambridge: Cambridge University Press.
2. Šekrst, K. (2026, forthcoming). Unjustified untrue “beliefs”: AI hallucinations and justification logics. In: K. Świątorzecka, F. Grgić & A. Brożek (eds.), *Logic, Knowledge, and Tradition. Essays in Honor of Srećko Kovač*. Leiden: Brill.
3. Šekrst, K. (2026, forthcoming). If You Stab Me, Do I Not Halt? AI Ethics in Star Trek. In: C. A. Meyer & D. Preston (eds.), *60 Years of Star Trek: Influence and Impact*. Jackson: University Press of Mississippi.
4. Šekrst, K.; Uranić, I. (2026, forthcoming). Wrath of the Words: Decoding Performativity and Magic in The Mummy Franchise. In: M. Brittany & S. Woodard (eds.), *No Harm Ever Came From Reading a Book: Critical Essays on The Mummy Franchise*. Jackson: University Press of Mississippi.
5. Šekrst, K., J. McHugh & J. Cefalu (2026, forthcoming). Ethical Guardrails for AI: A Framework for Fairness and “Make Your Own Ethics”. University of Kansas.
6. Šekrst, K. (2025). Do Large Language Models Hallucinate Electric Fata Morganas? *Journal of Consciousness Studies* 32(11-12), 96–120. <https://doi.org/10.53765/20512201.32.11.096>.
7. Šekrst, K. (2025). Don’t judge a film by its thumbnail: the question of cybernetic intentionality. *Mind and Society*, 24, 1047–1059. <https://doi.org/10.1007/s11299-025-00320-5>.
8. Šekrst, K. (2024). Chinese Chat Room: AI hallucinations, epistemology and cognition. *Studies in Logic, Grammar and Rhetoric*, 69(82), 365–381. <https://doi.org/10.2478/slgr-2024-0029>.

9. Šekrst, K.; Karlić, V. (2024). Red onions are clearly purple: cognitive convenience in color naming. *Communication and Culture Online*, 15(15). <https://doi.org/10.18485/kkonline.2024.15.15.7>.
10. Šekrst, K. (2024). Narrativism and Performativity in Absurda and Darkened Room. In: A. Winters (ed.), *A Critical Companion to David Lynch*. Lexington Books.
11. Karlić, V.; Šekrst, K. (2024). Doma doma je uvijek najljepše – Kontrastivna leksička repeticija u hrvatskome jeziku [in Croatian: There's no place like home-home – Contrastive lexical repetition in Croatian]. *Rasprave Instituta za hrvatski jezik i jezikoslovlje* 50(1), 69–86.
12. Šekrst, K. (2024). Astrobiology in Philosophy or Philosophy in Astrobiology. *Cosmos and History*, 20(1). <https://cosmosandhistory.org/index.php/journal/article/view/1140>.
13. Šekrst, K.; Skansi, S. (2024). Newspeak and Cyberspeak: The Haunting Ghosts of the Russian Past. In: Chris Shei & James Schnell (eds.), *The Routledge Handbook of Language and Mind Engineering*. London: Routledge, 64–92.
14. Šekrst, K. (2023). The Status of Video Games as Self-Involving Interactive Fictions: Fuzzy Intervals and Hard Identifications. *Sic*, 3(13). <https://doi.org/10.15291/sic/3.13.1c.3>.
15. Skansi, S.; Šekrst, K.; Kardum, M. (2023). Je li matematika humanistička znanost? [in Croatian: Is mathematics a humanistic science?]. *Filozofska istraživanja*, 43(2), 321–331.
16. Šekrst, K. (2023). Darmok and Jalad on the Internet: The Importance of Metaphors in Natural Languages and Natural Language Processing. In: Emily Strand & Amy H. Sturgis (eds.), *Star Trek: Essays Exploring the Final Frontier*. Delaware: Vernon Press, 89–118.
17. Šekrst, K.; Skansi, S. (2023). Machine Learning and Essentialism. *Philosophical Problems in Science*, 73: 171–196. <https://doi.org/10.59203/zfn.73.595>.
18. Petrović, A.; Šekrst, K.; Karlić, V. (2023). Can a negation be rude? It can't, my ass!: On the syntactic structure and pragmatic properties of rude negations in Croatian. In: A. Mikić Čolić; M. Glušac (eds.), *Standard and Non-Standard Idioms*. Zagreb: HDPL, 197–217.
19. Šekrst, K. (2023). Wanna binge-watch an 18-hour film? Twin Peaks and the psychology of the watching experience. In: A. Cichoń; S. Wróbel (eds.), *Images between Series and Stream*. Warsaw: Universitas, 117–131.
20. Šekrst, K. (2022/2024). Tony “Two-Toes”: The Pragmatics of Nicknames in Films. *Quarterly Review of Film and Video* 41(2), 244–259. <https://doi.org/10.1080/10509208.2022.2114578>.
21. Šekrst, K. (2022). Everybody lies: deception levels in various domains of life. *Biosemiotics*, 15, 22. <https://doi.org/10.1007/s12304-022-09485-9>.
22. Šekrst, K. (2022). Having the foggiest idea: a gradual account on mental images. *Journal of Neurophilosophy*, 1(2), 203–211. <https://doi.org/10.5281/zenodo.7254024>.

23. Skansi, S.; Šekrst, K. (2021). The Role of Process Ontology in Cybernetics. *Synthesis Philosophica*, 36(2), 461–469. <https://doi.org/10.21464/sp36211>.
24. Skansi, S.; Šekrst, K.; Kardum, M. (2020). A Different Approach for Clique and Household Analysis in Synthetic Telecom Data Using Propositional Logic. *MIPRO*, 1286–1289. <https://doi.org/10.23919/MIPRO48935.2020.9245421>.
25. Šekrst, K. (2020). AI-Completeness: Using Deep Learning to Eliminate the Human Factor. In: S. Skansi (ed.), *Guide to Deep Learning Basics*. Cham: Springer, 117–130. https://doi.org/10.1007/978-3-030-37591-1_11.
26. Šekrst, K. (2020). Much ado about nothing: cosmological anthropic limits of quantum fluctuations. In: L. Boršić et al. (eds.), *Physics and Philosophy II*. Zagreb/Split: Institute of Philosophy, 105–114.
27. Šekrst, K. (2015). The Studies of the Ancient Egyptian Language in Croatia and Serbia. In: M. Tomorad (ed.), *A History of Research into Ancient Egyptian Culture Conducted in Southeast Europe*. Oxford: Archaeopress, 157–161.
28. Tomorad, M.; Čavka, M.; Uranić, I.; Šekrst, K. (2014). Current Egyptological Research in Croatia. *Studies in Ancient Art and Civilisation*, 18, 283–305. <https://doi.org/10.12797/SAAC.18.2014.18.17>.

Other Publications

1. Šekrst, K. (2023). Hot Spacetime. In: J. Kemling; R. E. Auxier (eds.), *Queen and Philosophy: Guaranteed to Blow Your Mind*. Chicago: Open Universe/Carus Books, 149–158.
2. Šekrst, K. (2022). Slippin' Identity. In: J. Heter; B. Coppenger (eds.), *Better Call Saul and Philosophy*. Chicago: Carus Books, 101–109.
3. Šekrst, K. (2020). Lingvistički opis etrurskog jezika [in Croatian: Linguistic Description of the Etruscan Language]. In: I. Uranić (ed.), *Liber i mumija* [Liber and the Mummy]. Zagreb: Archaeological Museum in Zagreb, 49–57.
4. Šekrst, K. (2020). Post Scriptum (chapters: Egyptian scripts, Linear A, B, C and Cretan hieroglyphs, Proto-Sinaitic script, Phoenician script, Aramaic script and derivatives, Ogham script, Caucasian Albanian, Georgian and Armenian scripts, Anatolian scripts, Iranian scripts, Tibetan script, Ancient and modern African scripts, American and Canadian Indigenous scripts, Mayan hieroglyphs, Aztec script and scripts of Central Mexico, Gothic script, Glagolitic, Cyrillic) [in Croatian]. Zagreb: Archaeological Museum in Zagreb.
5. Šekrst, K. (2012). Poredbena tekstna rekonstrukcija [in Croatian: Comparative Textual Reconstruction]. In: B. Petrović (ed.), *Tekstom o tekstu* [Text on Text]. Zagreb: FF Press, 13–23.

Conference Presentations

International Conferences

1. Šekrst, K. (2025). How to Design an Artificial Mind. *Online Workshop on Agentic AI*. University of Erlangen-Nuremberg / Chinese Academy of Sciences / Northeastern University London. November 21–27, 2025.

2. Šekrst, K. (2025). How to Miss a Mind. *Budapest Workshop on Philosophy and Technology*. Budapest University of Technology and Economics. November 26–27, 2025.
3. Šekrst, K. (2025). Astrobiology and the Transformation of Scientific Epistemology. *Bienial European Astrobiology Conference*. Reykjavik, Iceland. July 1–5, 2025.
4. Šekrst, K. (2025). Do Large Language Models Hallucinate Electric Fata Morganas? *Ernst Mach Workshop XIII 2025: Conscious AI? Functionalism and its Alternatives*. Institute of Philosophy, Czech Academy of Sciences, Prague. June 2–3, 2025.
5. Šekrst, K. (2025). Computational Proto-Qualia. *Philosophy in Technology Conference 4th Edition*. Polish Academy of Arts and Sciences, Wrocław. April 25–26, 2025.
6. Šekrst, K. (2025). Ethical Guardrails for AI: A Framework for Fairness and “Make Your Own Ethics”. *Advancing Fairness in Machine Learning Workshop*. University of Kansas.
7. Šekrst, K. (2025). What Is It Like to Be a Cat? Consciousness and Subjective Experience in *Stray* (2022). *Conference on Domestic Cats in Literature*. Troy University, USA. March 13–15, 2025.
8. Greif, H.; Šekrst, K. (2024). The Origin of Adaptation, Effective Procedures, and the Reality of Mechanism. *International Association for Computing and Philosophy 2024*. Oregon, USA. July 8–10, 2024.
9. Karlić, V.; Šekrst, K. (2024). Guze sina razmetnoga: o formalnim i funkcionalnim obilježjima igara riječima [in Croatian: The Prodigal Son’s Buttocks: On Formal and Functional Features of Wordplay]. *XXXVIII. međunarodni znanstveni skup HDPL-a “Jezik u doba globalizacije”* [38th International Conference of the Croatian Applied Linguistics Society “Language in the Age of Globalization”]. Osijek. June 13–15, 2024.
10. Šekrst, K. (2023). Do Computers Hallucinate Electric Fata Morganas? *Frontiers of Artificial Intelligence – Philosophical explorations*. Polish Academy of Arts and Sciences, Warsaw. December 1–2, 2023.
11. Šekrst, K. (2023). “The animal as machine”: Ashby’s pioneering work on adaptation. *ISHPSSB 2023*. Toronto, Canada. July 9–15, 2023.
12. Karlić, V.; Šekrst, K. (2023). Doma-doma je uvijek najljepše: Kontrastivna reduplikacija fokusa u hrvatskome i srpskome jeziku [in Croatian: There’s No Place Like Home-Home: Contrastive Focus Reduplication in Croatian and Serbian]. *Jezik i migracije: 37. međunarodni znanstveni skup HDPL-a* [Language and Migration: 37th International Conference of the Croatian Applied Linguistics Society]. Osijek. June 15–17, 2023.
13. Šekrst, K. (2022). Taming of the Shroom: Fungi, Computation and Mycophilosophy. *Information and Computing in Nature: Philosophical Perspectives*. Polish Academy of Arts and Sciences, Warsaw. December 1, 2022.
14. Šekrst, K. (2022). Sex, Lies and Video Games: Cognitive Mechanisms in Pretensive Reality. *Video Games as a Common Ground conference*. University of Zadar. September 2–3, 2022.
15. Karlić, V.; Petrović, A.; Šekrst, K. (2022). Može li negacija biti nepristojna? K... ne može! O sintaktičkoj strukturi i pragmatičkim obilježjima nepristojnih negacija [in Croatian: Can a

- Negation Be Rude? It can't, my ass! On the Syntactic Structure and Pragmatic Properties of Rude Negations]. *Standardni i nestandardni idiomi: 36. međunarodni znanstveni skup HDPL-a* [Standard and Non-Standard Idioms: 36th International Conference of the Croatian Applied Linguistics Society]. Osijek. June 9–11, 2022.
16. Šekrst, K. (2022). Astrobiology in Philosophy or Philosophy in Astrobiology? *Astrobiology and Society: Third Conference on History and Philosophy of Astrobiology*. European Astrobiology Institute / Lund University, Höör, Sweden. June 3–4, 2022.
 17. Šekrst, K.; Skansi, S. (2021). Machine learning and Essentialism. *Philosophy in Informatics VI*. Warsaw University of Technology. December 16–17, 2021.
 18. Šekrst, K. (2021). Time and Seriality Deconstructed: The Case of *Twin Peaks*. *Images Between Series and Stream – Rethinking Seriality and Streaming*. University of Warsaw. November 18–19, 2021.
 19. Šekrst, K. (2021). A Hiss-tory of Human-Cat Symbiosis and Hybrids in Film. *Domestic Cats in Literature*. Troy University, USA. June 11–12, 2021.
 20. Skansi, S.; Šekrst, K.; Kardum, M. (2020). A Different Approach for Clique and Household Analysis in Synthetic Telecom Data Using Propositional Logic. *MIPRO 2020*. Opatija. September 28 – October 2, 2020.
 21. Šekrst, K. (2017). We Don't Need No Computation: Why Physicists Should Care About Computational Complexities. *The Sixth Physics & Philosophy Meeting*. University of Split. July 4–7, 2017.
 22. Šekrst, K. (2017). Nazi Sex Robots: Moral Reasoning Guided by Computational Complexities. *Zagreb Applied Ethics Conference: Ethics of Robotics and Artificial Intelligence*. Zagreb. June 5–7, 2017.
 23. Šekrst, K. (2017). Formalizing Inferential Evidentiality: From Justification Logic to Machine Learning. *Formal Methods and Science in Philosophy*. Institute of Philosophy, Dubrovnik. May 4–6, 2017.
 24. Šekrst, K. (2016). Nothingness: Quantum Fluctuations and Quantum Computing. *The Fifth Physics & Philosophy Conference*. University of Split. July 7–8, 2016.
 25. Šekrst, K. (2015). The Cosmological Theory of Inflation: Problems, Possible Answers, and Computational Complexities. *The Fourth Physics & Philosophy Conference*. University of Split. July 6–7, 2015.
 26. Šekrst, K. (2015). Staroegipatski jezik i e-učenje [in Croatian: Ancient Egyptian Language and E-Learning]. *Moodle Moot 2015*. SRCE / Faculty of Humanities and Social Sciences, Zagreb. June 18, 2015.
 27. Šekrst, K. (2015). Computational Complexity, Machine Learning, and Philosophy of Mind: Preliminary Reports. *Formal Methods and Science in Philosophy*. Institute of Philosophy, Dubrovnik. March 26–28, 2015.
 28. Šekrst, K. (2012). Linguistic Study of the Ancient Near East and Egypt in Southeast Europe [in Croatian]. *Research on the History and Culture of the Ancient Near East and Egypt in Southeast Europe*. Faculty of Croatian Studies, Zagreb. June 18–20, 2012.

29. Šekrst, K. (2012). Prepositional Doubling: a Typological and Comparative Analysis with Special Emphasis on South Slavic Languages. *Languages and Cultures in Time and Space* 2. Faculty of Philosophy, Novi Sad. November 24, 2012.

Book Reviews

1. Šekrst, K. (2023). Book review: Ivan Restović, *Pojmovno-logička struktura Brouwerove filozofije* [in Croatian: The Conceptual-Logical Structure of Brouwer's Philosophy]. *Prolegomena*, 21(2), 216–221.
2. Šekrst, K. (2022). Book review: David Huckvale, *Terrors of the Flesh: The Philosophy of Body Horror in Film*. *Film-Philosophy*, 26(2), 280–283.
3. Šekrst, K. (2017). Book review: Ray Jackendoff, *Praktični vodič kroz mišljenje i značenje* [in Croatian: A User's Guide to Thought and Meaning], trans. Anita Peti-Stantić. *Prolegomena*, 16(2), 199–202.
4. Šekrst, K. (2016). Book review: Syraya Chin-Mu Yang, Duen-Min Deng, Hanti Lin (eds.), *Structural Analysis of Non-Classical Logics: The Proceedings of the Second Taiwan Philosophical Logic Colloquium*. Berlin/Heidelberg: Springer Verlag. *Prolegomena*, 15(2), 220–223.

Research Projects

Artificial Intelligence: A New Interlocutor for Croatian Society (AI-COM) 2025–present
Faculty of Croatian Studies; PI: Marko Kardum, Ph.D.

Contemporary South Slavic Languages: (Socio)pragmatic Analyses 2023–2025
Faculty of Humanities and Social Sciences, Zagreb; PI: Virna Karlić, Ph.D.

Historical, Philosophical, Societal and Ethical Issues in Astrobiology 2022–present
European Astrobiology Institute; PI: Prof. Erik Persson, Ph.D., Reader in Practical Philosophy

Logic, Concepts, and Communication 2015–2019
Croatian Science Foundation; PI: Prof. Srećko Kovač, Ph.D.

Zagreb Egyptological School 2011–present
Archaeological Museum in Zagreb; co-PIs: Igor Uranić, Senior Research Advisor, and Porin Šćukanec Reznicek, Curator.

Invited and Public Lectures

1. Šekrst, K. (2025). The Boy Who Cried ‘Life!’: False Positives, False Negatives, and the Nature of Evidence in Astrobiology. European Astrobiology Institute. September 18, 2025.
2. Šekrst, K.; Uranić, I. (2025). Kletve faraona: magija i moć riječi u staroegipatskoj tradiciji [in Croatian: Curses of the Pharaohs: Magic and the Power of Words in Ancient Egyptian Tradition]. Archaeological Museum in Zagreb. February 25, 2025.

3. Šekrst, K. (2024). Evidence in Astrobiology: A Philosophical Perspective. European Astrobiology Institute. September 11, 2024.
4. Janović, T.; Jelić, V.; Šekrst, K. (2018). Fermijev paradoks danas [in Croatian: The Fermi Paradox Today]. City Library, Zagreb. December 12, 2018.
5. Šekrst, K. (2014). Indijanska plemena i šamanizam [in Croatian: Indigenous Tribes and Shamanism]. Archaeological Museum in Zagreb. November 6, 2014.
6. Šekrst, K. (2013). Staroegipatski jezik nekad i danas – povijest istraživanja i nove spoznaje [in Croatian: Ancient Egyptian Language Then and Now – History of Research and New Insights]. Archaeological Museum in Zagreb. December 19, 2013.

Peer Review for Journals

2026:

- Topics in Cognitive Science
- AI and Ethics

2025:

- Topics in Cognitive Science
- AI and Ethics
- Philosophies
- Journal of Big Data
- Philosophy, Theory, and Practice in Biology
- Journal for the General Philosophy of Science
- International Journal of Computational Intelligence Systems
- Episteme
- Discover Artificial Intelligence
- Minds and Machines
- Studies in Logic, Grammar, and Rhetoric

2024:

- Philosophical Inquiries
- Philosophical Problems in Science
- Acta medico-historica Adriatica

2023:

- Mind
- Philosophical Problems in Science

2020:

- Prolegomena

Professional Memberships

- Cognitive Science Society
- AISB: Society for the Study of Artificial Intelligence and Simulation of Behaviour
- Croatian Logic Association
- European Astrobiology Institute – Working Group on Historical, Philosophical, Societal and Ethical Issues in Astrobiology

Awards and Honors

Rector's Award for scientific work 2009
University of Zagreb
Paper: Prolegomena to the Deconstruction of Lexical Categories, supervisor: Marin Andrijašević, Ph.D.

Languages

Active: Croatian, English, Russian

Classical languages: Ancient Egyptian, Latin, Sanskrit, Coptic, Demotic (reading and translation)

Passive: most Indo-European languages

Other

Mentor Caltech, Coursera – <i>Science of the Solar System</i> (Prof. Mike Brown)	2016–2020
Mentor University of Illinois at Urbana-Champaign, Coursera – <i>Genomics</i>	2017–2020
Mentor Harvard University, edX – <i>Super-Earths and Life</i> (Prof. Dimitar Sasselov)	2015–2017