Dr. Cogan Shimizu

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Assistant Professor Knowledge and Semantic Technologies Lab Department of Computer Science & Engineering Wright State University, Dayton, OH 45402, USA

April 2025

Curriculum Vitae

Scientific Career

08.2022-Present Assistant Professor

Department of Computer Science & Engineering

Wright State University, USA

11.2021–06.2022 Visiting Researcher

Leibniz Universität Hannover

German National Library of Science and Technology

Hannover, Germany

08.2020-07.2022 Postdoctoral Fellow

Center for Artificial Intelligence and Data Science

Department of Computer Science Kansas State University, USA

05.2019–06.2019 Visiting Researcher

Department of Computer Science and Informatics

Jönköping University, Sweden

Scientific Education

08.2019–07.2020 Graduate Research Assistant

Center for Artificial Intelligence and Data Science

Department of Computer Science Kansas State University, USA

08.2016–07.2019 Graduate Research Assistant and DAGSI Fellow

Department of Computer Science and Engineering

Wright State University, Ohio, USA

08.2014–07.2016 Study of Computer Science

Wright State University, Ohio, USA

Degrees

07.2020 PhD in Computer Science

Kansas State University, USA

07.2017 M.S. in Computer Science

Outstanding Student in Computer Science (M.S.) nominated

Wright State University, Ohio, USA

07.2016 B.S. in Computer Science, magna cum laude

Dean's List-Highest Honors

Outstanding Student in Computer Science (B.S.)

Wright State University, Ohio, USA

Web References

Homepage http://coganshimizu.com

Google Scholar https://scholar.google.com/citations?user=PIBF5eQAAAAJ

DBLP https://dblp.uni-trier.de/pers/hd/s/Shimizu:Cogan

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1 Projects & Funding

Since 2016, I have acquired—as a graduate student, postdoctoral researcher, and assistant professor — totaling: \$3,007,138 in competitively awarded extramural funds. Specifically as an Assistant Professor at Wright State University, I have acquired \$2,374,393 in competitive extramural funding.

1.1 Current Funding - \$2,229,365

EAGER: A Feasibility Study for a Translational Institute for Knowledge Axiomatization.

National Science Foundation. February 2025 to January 2026.

Role: Pl.

Funding: \$300,000

 Creation of Materials, Manufacturing and Design Knowledge Representation via Selfassembly of Ontology Design Patterns.

TASK-MATS: Task Adaptation with Shared Knowledge for Multi-Agent Teaming Systems.

DAGSI/SOCHE. Role: Faculty PI.¹

Funding: \$52,260 (yearly renewals – \$209,040 expected)

- Machine Learning for Polymer Solution Processing and Design

DAGSI/SOCHE.

KGWRAPS: A Knowledge Graph-Powered Research Assistant for Polymer Science.

Role: Faculty PI.1

Funding: \$52,260 (yearly renewals – \$209,040 expected)

- Proto-OKN Theme 3: An Education Gateway for the Proto-OKN (EduGate).

National Science Foundation. October 2023 to September 2026.

Role: Pl.

Funding: \$1,720,325

1.2 **Proposals Under Review – \$4,893,412**

Collaborative Research: CAIG: The Collective for Wicked Problems (Collect-WP): Unraveling Multi-Hazard Complexity with Network Analysis and AI.

National Science Foundation.

CAIG.

Role: co-Pl.

WSU Requested Funding: \$299,261

Under Review.

 Collaborative Research: Frameworks: Developing a Sustainable and Scalable Cyberinfrastructure for Geo-Connected Environmental Knowledge Graphs.

National Science Foundation.

CSSI.

Role: co-PI.

WSU Requested Funding: \$824,267

Under Review.

¹DAGSI/SOCHE proposals are primarily authored by students, but still require a faculty PI and work closely with a mentor from the US Air Force Research Laboratory.

Collaborative Research: AGENTS – A Generalized EnvironmeNt for virtual Teaching AssistantS.

National Science Foundation.

EDU/DRL: Research on Innovative Technologies for Enhanced Learning (RITEL).

Role: Pl.

WSU Requested Funding: \$602,156

Under Review.

POSE: Phase II: GeoWeave: GeoWeave: An Open Source Framework for an Environmental Knowledge Graph Ecosystem.

National Science Foudnation.

Pathways to Open Source Ecosystems (POSE).

Role: Pl.

Total Requested Funding: \$1,499,923

Under Review.

Collaborative Research: III: Medium: Human-LLM Teaming for Ontology and Knowledge Graph Creation (HuLLK).

National Science Foundation.

CISE/III: Core - Medium.

Role: Pl.

WSU Requested Funding: \$600,651

Under Review.

- REU Site: (Knowledge) Graphs and (Knowledge) Networks.

National Science Foundation.

CISE/IIS/III: REU Site.

Role: Pl.

Total Requested Funding: \$464,998

Under Review.

Collaborative Research: AGENTS – A Generalized EnvironmeNt for virtual Teaching AssistantS. National Science Foudnation.

DRL/C&FLT.

Role: Pl.

WSU Requested Funding: \$602,156

Under Review.

1.3 Proposals in Preparation – \$600,000 (approx.)

- IIS: Small: Interpreting Knowledge Graph Embeddings.

National Science Foundation.

CISE/III: Core - Small.

Role: Pl.

Total Requested Funding: \$600,000

In Preparation.

1.4 Internal Funding (Total) – \$20,000

1.4.1 Competitive or Peer-Reviewed

- Build Boffin Back: Seed Funding.

Wright State University Foundation. August 2023 to May 2024.

Role: co-Lead. Funding: \$5,000

1.4.2 Non-competitive - \$15,000

Supplement: Semantic and Composable Glyphs for Representing Al Systems.

Department of Computer Science & Engineering (\$5,000), Department of Biomedical, Industrial, and Human Factors Engineering (\$5,000), College of Engineering and Computer Science (\$5,000)

Wright State University. August 2023 to May 2024.

Role: Pl.

Funding: \$15,000

1.5 Conference Support – \$34,950

Travel: Travel Fellowships for Students from U.S. Universities to Attend ISWC 2023.

National Science Foundation.

Role: Pl.

Funding: \$20,000

 Student & Early Career Researcher Support for the 2022 U.S. Semantic Technologies Symposium (US2TS).

National Science Foundation.

Role: Pl.

Funding: \$14,950

1.6 Past Funding – \$420,373

- Semantic and Composable Glyphs for Representing Al Systems.

DAGSI/SOCHE.² August 2023 to May 2024.

Role: Pl.

Funding: \$24,500

- Supplement: Crosswalks for KWG and SPOKE.

Base Award: A1: KnowWhereGraph: Enriching and Linking Cross-Domain Knowledge Graphs using Spatially-Explicit Al Technologies. National Science Foundation. September 2022 to August 2024.

Role: Pl.

Funding: \$85,578

²Defense Associated Graduate Student Innovators / Strategic Ohio Council of Higher Education

- EAGER: Open Science Data in Semantic Web Research.

National Science Foundation. September 2020 to August 2023.

Role: Co-PI, main proposal author.

Funding: \$299,729

- Ontology Modeling for the Historic Slave Trade (Phase III).

Andrew W. Melon Foundation. Role: Senior Personnel (PI at WSU).

Funding: \$10,566

1.7 Graduate & Postdoctoral Funding – \$322,450

- A Modeling Workshop for Data in Agriculture.

Midwest Big Data Hub. November 2020.

Role: Pl.

Funding: \$1,000

Modular Ontology Modeling for Food Supply Chains.

National Institute for Standards and Technology (NIST). September 2019 to May 2021.

Role: Researcher, main proposal author.

Funding: \$199,510

- Knowledge Analytics with Semantic Technologies (KAST).

Dayton Area Graduate Studies Institute, May 2017 to July 2019.

Role: Pl.

Funding: \$121,940

1.8 Further Project Involvement

A1: KnowWhereGraph: Enriching and Linking Cross-Domain Knowledge Graphs using Spatially-Explicit Al Technologies.

National Science Foundation, September 2020 to August 2022.

Role: Postdoctoral Researcher.

Convergence Accelerator Phase I (RAISE): Spatially-Explicit Models, Methods, and Services for Open Knowledge Networks.

National Science Foundation, September 2019 to May 2020.

Role: Researcher.

- Towards Undifferentiated Cognitive Agents.

Air Force Office of Scientific Research. July 2018 to July 2021.

Role: Researcher.

- Ontology Modeling for the Historic Slave Trade.

The Andrew W. Mellon Froundation. April 2018 to September 2020.

Role: Researcher.

1.9 Fellowships and Scholarships

- Graduate Student Council Fellowship.

Wright State University, May 2016 to July 2017.

Amount: \$12,000

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- NAECON Grant.

NAECON, 2015-2016.

Amount: \$500

Kitty Hawk Scholarship.
 ASSP Kitty Hawk Chapter, 2015-2016.

Amount: \$500

Ohio College Opportunity Scholarship. The State of Ohio, 2015-2016.

Amount: \$500

2.1 Journal Articles

- 1. **Cogan Shimizu**, Andrew Eells, and Pascal Hitzler. MODL 2.0. *Applied Ontology*, 2024. In preparation
- 2. Antrea Christou and **Cogan Shimizu**. Improving knowledge graph understanding with contextual views. *Journal of Data Science and Intelligent Systems*. Under Review
- 3. Antrea Christou, Chris Davis Jaldi, Joseph Zalewski, Hande Küçük McGinty, Pascal Hitzler, and **Cogan Shimizu**. An ontology for representing curriculum and learning material. *Journal of Web Semantics*. Under Review
- 4. Rui Zhu, Cogan Shimizu, Shirly Stephen, Colby K. Fisher, Thomas Thelen, Kitty Currier, Krzysztof Janowicz, Pascal Hitzler, Mark Schildhauer, Wenwen Li, Dean Rehberger, Adrita Barua, Antrea Christou, Ling Cai, Abhilekha Dalal, Anthony D'Onofrio, Andrew Eells, Mitchell Faulk, Zilong Liu, Gengchen Mai, Mohammad Saeid Mahdavinejad, Bryce D. Mecum, Sanaz Saki Norouzi, Meilin Shi, Yuanyuan Tian, Sizhe Wang, Zhangyu Wang, and Joseph Zalewski. The KnowWhereGraph: A large-scale geo-knowledge graph for interdisciplinary knowledge discovery and geo-enrichment. *International Journal of Applied Earth Observation and Geoinformation*. Under Review
- 5. Nourhan Abouzahra, **Cogan Shimizu**, and Michael E. Miller. Ontology reuse strategies: Lessons for better interoperability. *Applied Ontology*. Under Review
- 6. Antrea Christou, Brandon Dave, and **Cogan Shimizu**. Experiments in graph structure and knowledge graph embeddings. *Neurosymbolic Artificial Intelligence*. Under Review
- 7. Shirly Stephen, Mitchell Faulk, Krzysztof Janowicz, Colby K. Fisher, Thomas Thelen, Rui Zhu, Pascal Hitzler, **Cogan Shimizu**, Kitty Currier, Mark Schildhauer, Dean Rehberger, Zhangyu Wang, and Antrea Christou. The S2 hierarchical discrete global grid as a nexus for data representation, integration, and querying across geospatial knowledge graphs. *Transactions in GIS*. Under Review
- 8. **Cogan Shimizu** and Pascal Hitzler. Ontology-based data organization for the enslaved project. *Journal of Slavery and Data Preservation*. In Press
- Cogan Shimizu, Shirly Stephen, Adrita Barua, Ling Cai, Antrea Christou, Kitty Currier, Abhilekha Dalal, Colby K. Fisher, Pascal Hitzler, Krzysztof Janowicz, Wenwen Li, Zilong Liu, Mohammad Saeid Mahdavinejad, Gengchen Mai, Dean Rehberger, Mark Schildhauer, Meilin Shi, Sanaz Saki Norouzi, Yuanyuan Tian, Sizhe Wang, Zhangyu Wang, Joseph Zalewski, Lu Zhou, and Rui Zhu. The KnowWhereGraph ontology. J. Web Semant., 84:100842, 2025
- 10. Chris Davis Jaldi, Eleni Ilkou, Noah L. Schroeder, and **Cogan Shimizu**. Education in the era of neurosymbolic Al. *J. Web Semant.*, 85:100857, 2025
- 11. **Cogan Shimizu** and Pascal Hitzler. Accelerating knowledge graph and ontology engineering with large language models. *J. Web Semant.*, 85:100862, 2025
- 12. Hande Küçük-McGinty, **Cogan Shimizu**, Pascal Hitzler, and Ajay Sharda. Towards a global food systems datahub. *Semantic Web*, 15(4):1129–1132, 2024
- 13. Damion M. Dooley, Magalie Weber, Liliana Ibanescu, Matthew Lange, Lauren E. Chan, Larisa N. Soldatova, Chen Yang, Robert Warren, **Cogan Shimizu**, Hande McGinty, and William Hsiao. Food process ontology requirements. *Semantic Web*, 15(4):1133–1164, 2024
- 14. **Cogan Shimizu**, Andrew Eells, Seila Gonzalez Estrecha, Lu Zhou, Pascal Hitzler, Alicia M. Sheill, Catherine Foley, and Dean Rehberger. Ontology design facilitating wikibase integration and a worked example for historical data. *J. Web Semant.*, 82:100823, 2024

15. **Cogan Shimizu**, Karl Hammar, and Pascal Hitzler. Modular ontology modeling. *Semantic Web*, 14(3):459–489, 2023

- 16. Krzysztof Janowicz, Pascal Hitzler, Wenwen Li, Dean Rehberger, Mark Schildhauer, Rui Zhu, Cogan Shimizu, Colby K. Fisher, Ling Cai, Gengchen Mai, Joseph Zalewski, Lu Zhou, Shirly Stephen, Seila Gonzalez Estrecha, Bryce D. Mecum, Anna Lopez-Carr, Andrew Schroeder, Dave Smith, Dawn J. Wright, Sizhe Wang, Yuanyuan Tian, Zilong Liu, Meilin Shi, Anthony D'Onofrio, Zhining Gu, and Kitty Currier. Know, Know Where, Knowwheregraph: A densely connected, cross-domain knowledge graph and geo-enrichment service stack for applications in environmental intelligence. Al Mag., 43(1):30–39, 2022
- 17. Krzysztof Janowicz, **Cogan Shimizu**, Pascal Hitzler, Gengchen Mai, Shirly Stephen, Rui Zhu, Ling Cai, Lu Zhou, Mark Schildhauer, Zilong Liu, Zhangyu Wang, and Meilin Shi. Diverse data! diverse schemata? *Semantic Web*, 13(1):1–3, 2022
- 18. Pascal Hitzler, Krzysztof Janowicz, **Cogan Shimizu**, Lu Zhou, and Andrew Eells. Open science data and the semantic web journal. *Semantic Web*, 12(3):401–402, 2021
- 19. Pascal Hitzler, Krzysztof Janowicz, Ajay Sharda, and **Cogan Shimizu**. Advancing agriculture through semantic data management. *Semantic Web*, 12(4):543–545, 2021
- 20. Stefano Borgo, Pascal Hitzler, and **Cogan Shimizu**. Time is ripe to embrace the scientific approach in applied ontology. *Appl. Ontology*, 15(3):245–249, 2020
- Cogan Shimizu, Pascal Hitzler, Quinn Hirt, Dean Rehberger, Seila Gonzalez Estrecha, Catherine Foley, Alicia M. Sheill, Walter Hawthorne, Jeff Mixter, Ethan Watrall, Ryan Carty, and Duncan Tarr. The Enslaved Ontology: Peoples of the historic slave trade. *Journal of Web* Semantics, 63:100567, 2020
- 22. **Cogan Shimizu**, Pascal Hitzler, and Krzysztof Janowicz. A closer look at the Semantic Web journal's review process. *Semantic Web*, 10(1):1–7, 2019

2.2 Conference Papers

- 23. Alexis Ellis, Brandon Dave, Hugh Salehi, Subhashini Ganapathy, and Cogan Shimizu. EASY-AI: semantic and composable glyphs for representing AI systems. In Fabian Lorig, Jason Tucker, Adam Dahlgren Lindström, Frank Dignum, Pradeep K. Murukannaiah, Andreas Theodorou, and Pinar Yolum, editors, HHAI 2024: Hybrid Human AI Systems for the Social Good Proceedings of the Third International Conference on Hybrid Human-Artificial Intelligence, Malmö, Sweden, 10-14 June 2024, volume 386 of Frontiers in Artificial Intelligence and Applications, pages 105–113. IOS Press, 2024
- 24. Anmol Saini, Jeffrey G. Ethier, and Cogan Shimizu. An ontology for conversations with virtual research assistants. In *36th IEEE International Conference on Tools with Artificial Intelligence, ICTAI 2024, Herndon, VA, USA, October 28-30, 2024*, pages 181–186. IEEE, 2024
- 25. Brandon Dave, Antrea Christou, and Cogan Shimizu. Towards understanding the impact of graph structure on knowledge graph embeddings. In Tarek R. Besold, Artur d'Avila Garcez, Ernesto Jiménez-Ruiz, Roberto Confalonieri, Pranava Madhyastha, and Benedikt Wagner, editors, Neural-Symbolic Learning and Reasoning 18th International Conference, NeSy 2024, Barcelona, Spain, September 9-12, 2024, Proceedings, Part II, volume 14980 of Lecture Notes in Computer Science, pages 41–50. Springer, 2024
- 26. Andrew Eells, Brandon Dave, Pascal Hitzler, and Cogan Shimizu. Commonsense ontology micropatterns. In Tarek R. Besold, Artur d'Avila Garcez, Ernesto Jiménez-Ruiz, Roberto Confalonieri, Pranava Madhyastha, and Benedikt Wagner, editors, Neural-Symbolic Learning and Reasoning 18th International Conference, NeSy 2024, Barcelona, Spain, September 9-12,

- 2024, Proceedings, Part II, volume 14980 of Lecture Notes in Computer Science, pages 51–59. Springer, 2024
- 27. Brandon Dave and **Cogan Shimizu**. Towards understanding the impact of schema on knowledge graph embeddings. 2023. In press. Invited
- Damion M. Dooley, Magalie Weber, Liliana Ibanescu, Matthew Lange, Lauren E. Chan, Larisa N. Soldatova, Chen Yang, Robert Warren, Cogan Shimizu, Hande McGinty, and William Hsiao. Besoins ontologiques pour la transformation des aliments. In Cássia Trojahn, editor, 34es Journées francophones d'Ingénierie des Connaissances, IC 2023, @ Plate-Forme Intelligence Artificielle, PFIA 2023, Strasbourg, France, July 05-07, 2023, pages 40–47. PFIA, 2023
- 29. Cogan Shimizu, Pascal Hitzler, Seila Gonzalez Estrecha, Jeff Goeke-Smith, Dean Rehberger, Catherine Foley, and Alicia M. Sheill. The wikibase approach to the enslaved.org hub knowledge graph. In Terry R. Payne, Valentina Presutti, Guilin Qi, María Poveda-Villalón, Giorgos Stoilos, Laura Hollink, Zoi Kaoudi, Gong Cheng, and Juanzi Li, editors, *The Semantic Web ISWC 2023 22nd International Semantic Web Conference, Athens, Greece, November 6-10, 2023, Proceedings, Part II*, volume 14266 of *Lecture Notes in Computer Science*, pages 419–434. Springer, 2023
- 30. Hugh Salehi Alexis Ellis and **Cogan Shimizu**. Semantic and composable glyphs for representing ai systems. *NES 2023 Work Smart Ergonomics in the digital age*, 2024
- 31. Cogan Shimizu, Shirly Stephen, Antrea Christou, Kitty Currier, Mohammad Saeid Mahdavine-jad, Sanaz Saki Norouzi, Abhilekha Dalal, Adrita Barua, Colby K. Fisher, Anthony D'Onofrio, Thomas Thelen, Krzysztof Janowicz, Dean Rehberger, Mark Schildhauer, and Pascal Hitzler. KnowWhereGraph-lite: A perspective of the KnowWhereGraph. In Fernando Ortiz-Rodríguez, Boris Villazón-Terrazas, Sanju Tiwari, and Carlos Bobed, editors, Knowledge Graphs and Semantic Web 5th Iberoamerican Conference and 4th Indo-American Conference, KGSWC 2023, Zaragoza, Spain, November 13-15, 2023, Proceedings, volume 14382 of Lecture Notes in Computer Science, pages 199–212. Springer, 2023
- 32. Rushrukh Rayan, **Cogan Shimizu**, Heidi Sieverding, and Pascal Hitzler. A modular ontology for MODS metadata object description schema. In Fernando Ortiz-Rodríguez, Boris Villazón-Terrazas, Sanju Tiwari, and Carlos Bobed, editors, *Knowledge Graphs and Semantic Web 5th Iberoamerican Conference and 4th Indo-American Conference, KGSWC 2023, Zaragoza, Spain, November 13-15, 2023, Proceedings*, volume 14382 of *Lecture Notes in Computer Science*, pages 168–182. Springer, 2023
- 33. Zilong Liu, Zhining Gu, Thomas Thelen, Seila Gonzalez Estrecha, Rui Zhu, Colby K. Fisher, Anthony D'Onofrio, Cogan Shimizu, Krzysztof Janowicz, Mark Schildhauer, Shirly Stephen, Dean Rehberger, Wenwen Li, and Pascal Hitzler. Knowledge explorer: exploring the 12-billion-statement KnowWhereGraph using faceted search (demo paper). In Matthias Renz and Mohamed Sarwat, editors, Proceedings of the 30th International Conference on Advances in Geographic Information Systems, SIGSPATIAL 2022, Seattle, Washington, November 1-4, 2022, pages 73:1–73:4. ACM, 2022
- 34. Aaron Eberhart, **Cogan Shimizu**, Sulogna Chowdhury, Md. Kamruzzaman Sarker, and Pascal Hitzler. Expressibility of OWL axioms with patterns. In Ruben Verborgh, Katja Hose, Heiko Paulheim, Pierre-Antoine Champin, Maria Maleshkova, Óscar Corcho, Petar Ristoski, and Mehwish Alam, editors, *The Semantic Web 18th International Conference, ESWC 2021, Virtual Event, June 6-10, 2021, Proceedings*, volume 12731 of *Lecture Notes in Computer Science*, pages 230–245. Springer, 2021
- 35. Rui Zhu, **Cogan Shimizu**, Shirly Stephen, Lu Zhou, Ling Cai, Gengchen Mai, Krzysztof Janowicz, Mark Schildhauer, and Pascal Hitzler. SOSA-SHACL: shapes constraint for the sensor,

- observation, sample, and actuator ontology. In *IJCKG'21: The 10th International Joint Conference on Knowledge Graphs, Virtual Event, Thailand, December 6 8, 2021*, pages 99–107. ACM, 2021
- 36. **Cogan Shimizu**, Rui Zhu, Gengchen Mai, Colby K. Fisher, Ling Cai, Mark Schildhauer, Krzysztof Janowicz, Pascal Hitzler, Lu Zhou, and Shirly Stephen. A pattern for features on a hierarchical spatial grid. In *IJCKG'21: The 10th International Joint Conference on Knowledge Graphs, Virtual Event, Thailand, December 6 8, 2021*, pages 108–114. ACM, 2021
- 37. Rui Zhu, Ling Cai, Gengchen Mai, **Cogan Shimizu**, Colby K. Fisher, Krzysztof Janowicz, Anna Lopez-Carr, Andrew Schroeder, Mark Schildhauer, Yuanyuan Tian, Shirly Stephen, and Zilong Liu. Providing humanitarian relief support through knowledge graphs. In Anna Lisa Gentile and Rafael Gonçalves, editors, *K-CAP '21: Knowledge Capture Conference, Virtual Event, USA, December 2-3, 2021*, pages 285–288. ACM, 2021
- 38. Abhilekha Dalal, **Cogan Shimizu**, and Pascal Hitzler. Bridging upper ontology and modular ontology modeling: a tool and evaluation. In Boris Villazón-Terrazas, Fernando Ortiz-Rodríguez, Sanju Tiwari, Ayush Goyal, and M. Akhil Jabbar, editors, *Knowledge Graphs and Semantic Web Third Iberoamerican Conference and Second Indo-American Conference, KGSWC 2021, Kingsville, Texas, USA, November 22-24, 2021, Proceedings, volume 1459 of Communications in Computer and Information Science*, pages 16–30. Springer, 2021
- 39. Aaron Eberhart, Monireh Ebrahimi, Lu Zhou, **Cogan Shimizu**, and Pascal Hitzler. Completion reasoning emulation for the description logic EL+. In Andreas Martin, Knut Hinkelmann, Hans-Georg Fill, Aurona Gerber, Doug Lenat, Reinhard Stolle, and Frank van Harmelen, editors, *Proceedings of the AAAI 2020 Spring Symposium on Combining Machine Learning and Knowledge Engineering in Practice, AAAI-MAKE 2020, Palo Alto, CA, USA, March 23-25, 2020, Volume I, volume 2600 of CEUR Workshop Proceedings.* CEUR-WS.org, 2020
- 40. Lu Zhou, Cogan Shimizu, Pascal Hitzler, Alicia M. Sheill, Seila Gonzalez Estrecha, Catherine Foley, Duncan Tarr, and Dean Rehberger. The enslaved dataset: A real-world complex ontology alignment benchmark using wikibase. In Mathieu d'Aquin, Stefan Dietze, Claudia Hauff, Edward Curry, and Philippe Cudré-Mauroux, editors, CIKM '20: The 29th ACM International Conference on Information and Knowledge Management, Virtual Event, Ireland, October 19-23, 2020, pages 3197–3204. ACM, 2020
- 41. **Cogan Shimizu**, Karl Hammar, and Pascal Hitzler. Modular graphical ontology engineering evaluated. In Andreas Harth, Sabrina Kirrane, Axel-Cyrille Ngonga Ngomo, Heiko Paulheim, Anisa Rula, Anna Lisa Gentile, Peter Haase, and Michael Cochez, editors, *The Semantic Web 17th International Conference, ESWC 2020, Heraklion, Crete, Greece, May 31-June 4, 2020, Proceedings*, volume 12123 of *Lecture Notes in Computer Science*, pages 20–35. Springer, 2020
- Garrett Goodman, Quinn Hirt, Cogan Shimizu, Iosif Papadakis Ktistakis, Miltiadis Alamaniotis, and Nikolaos G. Bourbakis. Methods for prediction optimization of the constrained state-preserved extreme learning machine. In 32nd IEEE International Conference on Tools with Artificial Intelligence, ICTAI 2020, Baltimore, MD, USA, November 9-11, 2020, pages 639–646. IEEE, 2020
- 43. Aaron Eberhart, **Cogan Shimizu**, Christopher Stevens, Pascal Hitzler, Christopher W. Myers, and Benji Maruyama. A domain ontology for task instructions. In Boris Villazón-Terrazas, Fernando Ortiz-Rodríguez, Sanju Mishra Tiwari, and Shishir K. Shandilya, editors, *Knowledge Graphs and Semantic Web Second Iberoamerican Conference and First Indo-American Conference, KGSWC 2020, Mérida, Mexico, November 26-27, 2020, Proceedings, volume 1232 of <i>Communications in Computer and Information Science*, pages 1–13. Springer, 2020
- 44. Garrett Goodman, **Cogan Shimizu**, and Iosif Papadakis Ktistakis. Constrained state-preserved extreme learning machine. In *31st IEEE International Conference on Tools with*

- Artificial Intelligence, ICTAI 2019, Portland, OR, USA, November 4-6, 2019, pages 752–759. IEEE, 2019
- 45. **Cogan Shimizu**, Aaron Eberhart, Nazifa Karima, Quinn Hirt, Adila Krisnadhi, and Pascal Hitzler. A method for automatically generating schema diagrams for OWL ontologies. In Boris Villazón-Terrazas and Yusniel Hidalgo-Delgado, editors, *Knowledge Graphs and Semantic Web-First Iberoamerican Conference, KGSWC 2019, Villa Clara, Cuba, June 23-30, 2019, Proceedings*, volume 1029 of *Communications in Computer and Information Science*, pages 149–161. Springer, 2019
- 46. Garrett Goodman, Tanvi Banerjee, William L. Romine, **Cogan Shimizu**, and Jennifer Hughes. Caregiver assessment using smart gaming technology: A feasibility study. In *2019 IEEE International Conference on Fuzzy Systems, FUZZ-IEEE 2019, New Orleans, LA, USA, June 23-26, 2019*, pages 1–6. IEEE, 2019
- 47. Pascal Hitzler and Cogan Shimizu. Modular ontologies as a bridge between human conceptualization and data. In Peter Chapman, Dominik Endres, and Nathalie Pernelle, editors, Graph-Based Representation and Reasoning 23rd International Conference on Conceptual Structures, ICCS 2018, Edinburgh, UK, June 20-22, 2018, Proceedings, volume 10872 of Lecture Notes in Computer Science, pages 3–6. Springer, 2018. Invited

2.3 Book Contributions

48.

- 49. Cogan Shimizu, Ryan M. McGranaghan, Aaron Eberhart, and Adam C. Kellerman. Towards a modular ontology for space weather research. In Eva Blomqvist, Torsten Hahmann, Karl Hammar, Pascal Hitzler, Rinke Hoekstra, Raghava Mutharaju, María Poveda-Villalón, Cogan Shimizu, Martin G. Skjæveland, Monika Solanki, Vojtech Svátek, and Lu Zhou, editors, Advances in Pattern-Based Ontology Engineering, extended versions of the papers published at the Workshop on Ontology Design and Patterns (WOP), volume 51 of Studies on the Semantic Web, pages 299–311. IOS Press, 2021
- 50. **Cogan Shimizu**, Adila Krisnadhi, and Pascal Hitzler. Modular ontology modeling: a tutorial. In Giuseppe Cota, Marilena Daquino, and Gian Luca Pozzato, editors, *Applications and Practices in Ontology Design, Extraction, and Reasoning*, Studies on the Semantic Web. IOS Press, 2020. To Appear
- 51. Iosif Papadakis Ktistakis, Garrett Goodman, and Cogan Shimizu. Cham
- 52. Michelle Cheatham, Holly Ferguson, Charles F. Vardeman II, and Cogan Shimizu. A modification to the hazardous situation ODP to support risk assessment and mitigation. In Karl Hammar, Pascal Hitzler, Adila Krisnadhi, Agnieszka Lawrynowicz, Andrea Giovanni Nuzzolese, and Monika Solanki, editors, Advances in Ontology Design and Patterns [revised and extended versions of the papers presented at the 7th edition of the Workshop on Ontology and Semantic Web Patterns, WOP@ISWC 2016, Kobe, Japan, 18th October 2016], volume 32 of Studies on the Semantic Web, pages 97–104. IOS Press, 2016

2.4 Theses

- 53. **Cogan Shimizu**. *Advances in Modular Ontology Engineering: Methodology and Tools*. PhD thesis, Kansas State University, 2020
- 54. **Cogan Shimizu**. Rendering OWL in LaTeX for improved readability: Extensions to the OWLAPI. Master's thesis, Wright State University, 2017

2.5 Edited Books

55. Eva Blomqvist, Torsten Hahmann, Karl Hammar, Pascal Hitzler, Rinke Hoekstra, Raghava Mutharaju, María Poveda-Villalón, **Cogan Shimizu**, Martin G. Skjæveland, Monika Solanki, Vojtech Svátek, and Lu Zhou, editors. *Advances in Pattern-Based Ontology Engineering, extended versions of the papers published at the Workshop on Ontology Design and Patterns (WOP)*, volume 51 of *Studies on the Semantic Web*. IOS Press, 2021

2.6 Journal Edited Issues

- 56. Special Issue on Semantic Web for the Global Food System. E.Griffiths, P. Hitzler, K. Janowicz, M. Solanki, A. Sharda, **C. Shimizu**, E. Wallace (Eds.) Semantic Web 15 (1), 2024. In Press.
- 57. Extended FOIS 2018 papers. S. Borgo, P. Hitzler, **C. Shimizu** (Eds.) Applied Ontology 15 (3), 2020.

2.7 Edited Workshop Proceedings

- 58. Fumiaki Toyoshima, Megan Katsumi, Guendalina Righetti, Stefano De Giorgis, Maria M. Hedblom, Oliver Kutz, Boyan Brodaric, Michael Grüninger, Torsten Hahmann, Damion Dooley Simon, Matthew Lange, Hande Küçük-McGinty, Anoosha Sehar Simon, Rhiannon Cameron, Bart Gajderowicz, Daniela Rosu, Janna Hastings, Davide Audrito, Luigi Di Caro, Francesca Grasso, Roberto Nai, Emilio Sulis, Loris Bozzato, Cogan Shimizu, Antoine Zimmermann, Riccardo Baratella, Stefano Borgo, Sergio de Cesare, and Tiago Prince Sales, editors. Proceedings of the Joint Ontology Workshops 2023 Episode IX: The Quebec Summer of Ontology colocated with the 13th International Conference on Formal Ontology in Information Systems (FOIS 2023), Sherbrooke, Québec, Canada, July 19-20, 2023, volume 3637 of CEUR Workshop Proceedings. CEUR-WS.org, 2023
- Cogan Shimizu, Rafael Goncalves, Juan Sequeda, Ruben Verborgh editors. Proceedings of the 1st Workshop on the Semantic Web in Practice: Tools and Pedagogy (PRAXIS 2020) co-located with 19th International Semantic Web Conference (ISWC 2019), Athens, Greece, November 1, 2020.
- 60. Eva Blomqvist, Torsten Hahmann, Karl Hammar, Pascal Hitzler, Rinke Hoekstra, Raghava Mutharaju, María Poveda-Villalón, Cogan Shimizu, Martin G. Skjæveland, Monika Solanki, Vojtech Svátek, and Lu Zhou, editors. Advances in Pattern-Based Ontology Engineering, extended versions of the papers published at the Workshop on Ontology Design and Patterns (WOP), volume 51 of Studies on the Semantic Web. IOS Press, 2021
- Krzysztof Janowicz, Adila Alfa Krisnadhi, María Poveda-Villalón, Karl Hammar, and Cogan Shimizu, editors. Proceedings of the 10th Workshop on Ontology Design and Patterns (WOP 2019) co-located with 18th International Semantic Web Conference (ISWC 2019), Auckland, New Zealand, October 27, 2019, volume 2459 of CEUR Workshop Proceedings. CEUR-WS.org, 2019

2.8 Workshop Contributions

62. Shirly Stephen, Mark Schildhauer, Krzysztof Janowicz, Kitty Currier, Pascal Hitzler, **Cogan Shimizu**, Colby K. Fisher, and Dean Rehberger. The HIP ontology: A formal framework to

support disaster risk reduction and management. In Italo Jose da Silva Oliveira, Pedro Paulo F. Barcelos, Rodrigo F. Calhau, Claudenir M. Fonseca, Guendalina Righetti, Stefano De Giorgis, Gabriele Sacco, Maria M. Hedblom, Oliver Kutz, Martin Glauer, Mirjam Stappel, Cássia Troiahn, María Poveda-Villalón, Daniel Garijo, César Henrique Bernabé, Asivah Yu Lin, Francesco Compagno, Anna Fensel, Walter Terkaj, Greta Adamo, Damion M. Dooley, Michaela Kümpel, Georgeta Bordea, Robert Warren, Anoosha Sehar, Matthew Lange, Felix Bindt, Ido Toxopeus, Davide Audrito, Francesca Grasso, Roberto Nai, Emilio Sulis, John Beverley, Mark Jensen, Sergio de Cesare, Frederik Gailly, Chris Partridge, Oscar Pastor, Alexander García Castro, Thomas Hubauer, Wolfgang Süß, Philipp Schmurr, Max Willis, Daniele Francesco Santamaria, Thiis van Ede, Dan Klein, Gal Engelberg, Gianpietro Castiglione, Giampaolo Bella, Andrea Continella, Giancarlo Guizzardi, Davide Lanti, Alessandro Mosca, Federico Maria Scafoglieri, Guohui Xiao, Krzysztof Kutt, Jesualdo Tomás Fernández-Breis, Alois Pichler, Gábor Palkó, Grzegorz J. Nalepa, Pawel Garbacz, Robert Pergl, Zubeida Casmod Khan, João Moreira, Adrien Barton, Emilio M. Sanfilippo, Laura Daniele, João Paulo A. Almeida, Enrico Franconi, Paul Johannesson, Chiara Ghidini, and Veruska Zamborlini, editors, Proceedings of the Joint Ontology Workshops (JOWO) - Episode X: The Tukker Zomer of Ontology, and satellite events co-located with the 14th International Conference on Formal Ontology in Information Systems (FOIS 2024), Enschede, The Netherlands, July 15-19, 2024, volume 3882 of CEUR Workshop Proceedings. CEUR-WS.org, 2024

- 63. Cogan Shimizu, Shirly Stephen, Rui Zhu, Kitty Currier, Mark Schildhauer, Dean Rehberger, Pascal Hitzler, Krzysztof Janowicz, Colby K. Fisher, Mohammad Saeid Mahdavinejad, Antrea Christou, Adrita Barua, Abhilekha Dalal, Sanaz Saki Norouzi, Zilong Liu, Meilin Shi, Ling Cai, Gengchen Mai, Zhangyu Wang, and Yuanyuan Tian. The KnowWhereGraph ontology: A showcase. In Fumiaki Toyoshima, Megan Katsumi, Guendalina Righetti, Stefano De Giorgis, Maria M. Hedblom, Oliver Kutz, Boyan Brodaric, Michael Grüninger, Torsten Hahmann, Damion Dooley Simon, Matthew Lange, Hande Küçük-McGinty, Anoosha Sehar Simon, Rhiannon Cameron, Bart Gajderowicz, Daniela Rosu, Janna Hastings, Davide Audrito, Luigi Di Caro, Francesca Grasso, Roberto Nai, Emilio Sulis, Loris Bozzato, Cogan Shimizu, Antoine Zimmermann, Riccardo Baratella, Stefano Borgo, Sergio de Cesare, and Tiago Prince Sales, editors, Proceedings of the Joint Ontology Workshops 2023 Episode IX: The Quebec Summer of Ontology co-located with the 13th International Conference on Formal Ontology in Information Systems (FOIS 2023), Sherbrooke, Québec, Canada, July 19-20, 2023, volume 3637 of CEUR Workshop Proceedings. CEUR-WS.org, 2023
- 64. Shirly Stephen, Mark Schildhauer, Kitty Currier, Pascal Hitzler, Cogan Shimizu, Krzysztof Janowicz, and Dean Rehberger. A formal framework for disaster risk properties. In Fumiaki Toyoshima, Megan Katsumi, Guendalina Righetti, Stefano De Giorgis, Maria M. Hedblom, Oliver Kutz, Boyan Brodaric, Michael Grüninger, Torsten Hahmann, Damion Dooley Simon, Matthew Lange, Hande Küçük-McGinty, Anoosha Sehar Simon, Rhiannon Cameron, Bart Gajderowicz, Daniela Rosu, Janna Hastings, Davide Audrito, Luigi Di Caro, Francesca Grasso, Roberto Nai, Emilio Sulis, Loris Bozzato, Cogan Shimizu, Antoine Zimmermann, Riccardo Baratella, Stefano Borgo, Sergio de Cesare, and Tiago Prince Sales, editors, Proceedings of the Joint Ontology Workshops 2023 Episode IX: The Quebec Summer of Ontology colocated with the 13th International Conference on Formal Ontology in Information Systems (FOIS 2023), Sherbrooke, Québec, Canada, July 19-20, 2023, volume 3637 of CEUR Workshop Proceedings. CEUR-WS.org, 2023
- 65. Shirly Stephen, Mark Schildhauer, Kitty Currier, Pascal Hitzler, Cogan Shimizu, Krzysztof Janowicz, and Dean Rehberger. A formal framework for disaster risk properties. In Fumiaki Toyoshima, Megan Katsumi, Guendalina Righetti, Stefano De Giorgis, Maria M. Hedblom, Oliver Kutz, Boyan Brodaric, Michael Grüninger, Torsten Hahmann, Damion Dooley Simon, Matthew Lange, Hande Küçük-McGinty, Anoosha Sehar Simon, Rhiannon Cameron, Bart

Gajderowicz, Daniela Rosu, Janna Hastings, Davide Audrito, Luigi Di Caro, Francesca Grasso, Roberto Nai, Emilio Sulis, Loris Bozzato, **Cogan Shimizu**, Antoine Zimmermann, Riccardo Baratella, Stefano Borgo, Sergio de Cesare, and Tiago Prince Sales, editors, *Proceedings of the Joint Ontology Workshops 2023 Episode IX: The Quebec Summer of Ontology colocated with the 13th International Conference on Formal Ontology in Information Systems (FOIS 2023), Sherbrooke, Québec, Canada, July 19-20, 2023*, volume 3637 of *CEUR Workshop Proceedings*. CEUR-WS.org, 2023

- 66. Rushrukh Rayan, **Cogan Shimizu**, and Pascal Hitzler. An ontology design pattern for role-dependent names. In *Workshop on Ontology Design and Patterns, WOP@ISWC 2023*. To appear
- 67. Shirly Stephen, **Cogan Shimizu**, Mark Schildhauer, Rui Zhu, Krzysztof Janowicz, and Pascal Hitzler. A pattern for representing scientific taxonomies. In Vojtech Svátek, Valentina Anita Carriero, María Poveda-Villalón, Christian Kindermann, and Lu Zhou, editors, *Proceedings of the 13th Workshop on Ontology Design and Patterns (WOP 2022) co-located with the 21th International Semantic Web Conference (ISWC 2022), Online, October 24, 2022, volume 3352 of CEUR Workshop Proceedings.* CEUR-WS.org, 2022
- 68. Cogan Shimizu, Pascal Hitzler, and Charles F. Vardeman II. A pattern for modeling computational observations. In Vojtech Svátek, Valentina Anita Carriero, María Poveda-Villalón, Christian Kindermann, and Lu Zhou, editors, Proceedings of the 13th Workshop on Ontology Design and Patterns (WOP 2022) co-located with the 21th International Semantic Web Conference (ISWC 2022), Online, October 24, 2022, volume 3352 of CEUR Workshop Proceedings. CEUR-WS.org, 2022
- 69. Yinglun Zhang, Antonina Broyaka, Jude Kastens, Allen M. Featherstone, Cogan Shimizu, Pascal Hitzler, and Hande Küçük-McGinty. Sustainable grain transportation in ukraine amidst war utilizing KNARM and KnowWhereGraph. In Ying Ding, Jie Tang, Juan F. Sequeda, Lora Aroyo, Carlos Castillo, and Geert-Jan Houben, editors, Companion Proceedings of the ACM Web Conference 2023, WWW 2023, Austin, TX, USA, 30 April 2023 4 May 2023, pages 742–745. ACM, 2023
- 70. Rui Zhu, Shirly Stephen, Lu Zhou, Cogan Shimizu, Ling Cai, Gengchen Mai, Krzysztof Janowicz, Pascal Hitzler, and Mark Schildhauer. Environmental observations in knowledge graphs. In Leyla Jael Castro, Markus Stocker, and Dietrich Rebholz-Schuhmann, editors, DaMaLOS Second Workshop on Data and Research Objects Management for Linked Open Science, Co-located at the International Semantic Web Conference ISWC 2021, Virtual Conference, October 24, 2021, pages 1–11, 2021
- 71. Cogan Shimizu, Quinn Hirt, and Pascal Hitzler. MODL: A modular ontology design library. In Krzysztof Janowicz, Adila Alfa Krisnadhi, María Poveda Villalón, Karl Hammar, and Cogan Shimizu, editors, *Proceedings of the 10th Workshop on Ontology Design and Patterns (WOP 2019) co-located with 18th International Semantic Web Conference (ISWC 2019), Auckland, New Zealand, October 27, 2019*, volume 2459 of CEUR Workshop Proceedings, pages 47–58. CEUR-WS.org, 2019
- 72. Quinn Hirt, Cogan Shimizu, and Pascal Hitzler. Extensions to the ontology design pattern representation language. In Krzysztof Janowicz, Adila Alfa Krisnadhi, María Poveda Villalón, Karl Hammar, and Cogan Shimizu, editors, Proceedings of the 10th Workshop on Ontology Design and Patterns (WOP 2019) co-located with 18th International Semantic Web Conference (ISWC 2019), Auckland, New Zealand, October 27, 2019, volume 2459 of CEUR Workshop Proceedings, pages 76–75. CEUR-WS.org, 2019
- 73. **Cogan Shimizu**, Pascal Hitzler, and Clare Paul. Ontology design patterns for Winston's taxonomy of part-whole relations. In Elena Demidova, Amrapali Zaveri, and Elena Simperl, editors, *Emerging Topics in Semantic Technologies ISWC 2018 Satellite Events [best papers from*

13 of the workshops co-located with the ISWC 2018 conference], volume 36 of Studies on the Semantic Web, pages 119–129. IOS Press, 2018³

- 74. Cogan Shimizu, Leah McEwen, and Quinn Hirt. Towards a pattern-based ontology for chemical laboratory procedures. In Martin G. Skjæveland, Yingjie Hu, Karl Hammar, Vojtech Svátek, and Agnieszka Lawrynowicz, editors, *Proceedings of the 9th Workshop on Ontology Design and Patterns (WOP 2018) co-located with 17th International Semantic Web Conference (ISWC 2018), Monterey, USA, October 9th, 2018*, volume 2195 of CEUR Workshop Proceedings, pages 40–51. CEUR-WS.org, 2018
- 75. **Cogan Shimizu** and Michelle Cheatham. An ontology design pattern for microblog entries. In Eva Blomqvist, Óscar Corcho, Matthew Horridge, David Carral, and Rinke Hoekstra, editors, *Proceedings of the 8th Workshop on Ontology Design and Patterns (WOP 2017) co-located with the 16th International Semantic Web Conference (ISWC 2017), Vienna, Austria, October 21, 2017*, volume 2043 of CEUR Workshop Proceedings. CEUR-WS.org, 2017

2.9 Posters & Demonstrations

- 76. Alexis Ellis and Cogan Shimizu. The EASY-AI symbology. In Lorena Etcheverry, Vanessa López Garcia, Francesco Osborne, and Romana Pernisch, editors, Proceedings of the ISWC 2024 Posters, Demos and Industry Tracks: From Novel Ideas to Industrial Practice co-located with 23nd International Semantic Web Conference (ISWC 2024), Hanover, Maryland, USA, November 11-15, 2024, volume 3828 of CEUR Workshop Proceedings. CEUR-WS.org, 2024
- 77. Rakesh Kandula, Lee Hannah, and Cogan Shimizu. Lexico-syntatic patterns for fine-tuning an LLM. In Lorena Etcheverry, Vanessa López Garcia, Francesco Osborne, and Romana Pernisch, editors, *Proceedings of the ISWC 2024 Posters, Demos and Industry Tracks: From Novel Ideas to Industrial Practice co-located with 23nd International Semantic Web Conference (ISWC 2024), Hanover, Maryland, USA, November 11-15, 2024*, volume 3828 of CEUR Workshop Proceedings. CEUR-WS.org, 2024
- 78. Cogan Shimizu and Pascal Hitzler. Automatically generating human readable documentation for ontology design patterns. In Oshani Seneviratne, Catia Pesquita, Juan Sequeda, and Lorena Etcheverry, editors, *Proceedings of the ISWC 2021 Posters, Demos and Industry Tracks: From Novel Ideas to Industrial Practice co-located with 20th International Semantic Web Conference (ISWC 2021), Virtual Conference, October 24-28, 2021*, volume 2980 of CEUR Workshop Proceedings. CEUR-WS.org, 2021
- 79. Joseph Zalewski, Lu Zhou, **Cogan Shimizu**, and Pascal Hitzler. Ink browser the interactive knowledge browser. In Oshani Seneviratne, Catia Pesquita, Juan Sequeda, and Lorena Etcheverry, editors, *Proceedings of the ISWC 2021 Posters, Demos and Industry Tracks: From Novel Ideas to Industrial Practice co-located with 20th International Semantic Web Conference (ISWC 2021), Virtual Conference, October 24-28, 2021, volume 2980 of CEUR Workshop Proceedings. CEUR-WS.org, 2021*
- 80. Abhilekha Dalal, **Cogan Shimizu**, and Pascal Hitzler. Modular ontology modeling meets upper ontologies: The upper ontology alignment tool. In Kerry L. Taylor, Rafael S. Gonçalves, Freddy Lécué, and Jun Yan, editors, *Proceedings of the ISWC 2020 Demos and Industry Tracks: From Novel Ideas to Industrial Practice co-located with 19th International Semantic Web Conference (ISWC 2020), Globally online, November 1-6, 2020 (UTC), volume 2721 of CEUR Workshop Proceedings*, pages 119–124. CEUR-WS.org, 2020

81.

³This paper won the workshop's Best Pattern Paper Award.

82. **Cogan Shimizu**, Quinn Hirt, and Pascal Hitzler. A Protégé plug-in for annotating OWL ontologies with OPLa. In Aldo Gangemi, Anna Lisa Gentile, Andrea Giovanni Nuzzolese, Sebastian Rudolph, Maria Maleshkova, Heiko Paulheim, Jeff Z. Pan, and Mehwish Alam, editors, *The Semantic Web: ESWC 2018 Satellite Events - ESWC 2018 Satellite Events, Heraklion, Crete, Greece, June 3-7, 2018, Revised Selected Papers*, volume 11155 of *Lecture Notes in Computer Science*, pages 23–27. Springer, 2018

83. **Cogan Shimizu**, Pascal Hitzler, and Matthew Horridge. Rendering OWL in description logic syntax. In Eva Blomqvist, Katja Hose, Heiko Paulheim, Agnieszka Lawrynowicz, Fabio Ciravegna, and Olaf Hartig, editors, *The Semantic Web: ESWC 2017 Satellite Events - ESWC 2017 Satellite Events, Portorož, Slovenia, May 28 - June 1, 2017, Revised Selected Papers*, volume 10577 of *Lecture Notes in Computer Science*, pages 109–113. Springer, 2017

2.10 Technical Reports

- 84. Rui Zhu, **Cogan Shimizu**, Shirly Stephen, Colby K. Fisher, Thomas Thelen, Kitty Currier, Krzysztof Janowicz, Pascal Hitzler, Mark Schildhauer, Wenwen Li, Dean Rehberger, Adrita Barua, Antrea Christou, Ling Cai, Abhilekha Dalal, Anthony D'Onofrio, Andrew Eells, Mitchell Faulk, Zilong Liu, Gengchen Mai, Mohammad Saeid Mahdavinejad, Bryce D. Mecum, Sanaz Saki Norouzi, Meilin Shi, Yuanyuan Tian, Sizhe Wang, Zhangyu Wang, and Joseph Zalewski. The knowwheregraph: A large-scale geo-knowledge graph for interdisciplinary knowledge discovery and geo-enrichment. *CoRR*, abs/2502.13874, 2025
- 85. Andrew Eells, Brandon Dave, Pascal Hitzler, and Cogan Shimizu. Commonsense ontology micropatterns. *CoRR*, abs/2402.18715, 2024
- 86. Rushrukh Rayan, **Cogan Shimizu**, Heidi Sieverding, and Pascal Hitzler. A modular ontology for MODS metadata object description schema. *CoRR*, abs/2308.00116, 2023
- 87. **Cogan Shimizu**, Andrew Eells, Seila Gonzalez Estrecha, Lu Zhou, Pascal Hitzler, Alicia M. Sheill, Catherine Foley, and Dean Rehberger. Ontology design facilitating wikibase integration and a worked example for historical data. *CoRR*, abs/2205.14032, 2022
- 88. **Cogan Shimizu**, Ryan McGranaghan, Aaron Eberhart, and Adam C. Kellerman. Towards a modular ontology for space weather research. *CoRR*, abs/2009.12285, 2020
- 89. **Cogan Shimizu**, Pascal Hitzler, Quinn Hirt, Alicia Sheill, Seila Gonzalez, Catherine Foley, Dean Rehberger, Ethan Watrall, Walter Hawthorne, Duncan Tarr, Ryan Carty, and Jeff Mixter. The Enslaved Ontology 1.0: People of the historic slave trade. Available from https://daselab.cs.ksu.edu/projects/ontology-modeling-slave-trade, 2019. Short version under review for the *Journal of Web Semantics*
- 90. Garrett Goodman, Abby Edwards, **Cogan Shimizu**, Tanvi Banerjee, Jennifer Hughes, William L. Romine, and Larry Lawhorne. Caregiver assessment using smart gaming technology: A preliminary approach. *CoRR*, abs/1802.03051, 2018

3 Instruction, Supervision, & Mentoring

3.1 Instruction

3.1.1 Graduate Instruction

- Introduction to Knowledge Engineering. Fall 2025. Professor.
- Neurosymbolic AI. Spring 2025. Professor.
- Introduction to Knowledge Engineering. Fall 2024. Professor.
- Neurosymbolic Al.⁴ Spring 2024. Professor.
- Introduction to Knowledge Engineering. Fall 2023. Professor.
- Introduction to Knowledge Engineering.⁵ Spring 2023. Professor.
- Computability & Complexity. Fall 2023. Professor.
- Computability & Complexity. Fall 2022. Professor.
- Knowledge Representation for the Semantic Web. Fall 2020. Co-Instructor.6
- Knowledge Representation for the Semantic Web. Fall 2019. Co-Instructor.⁶

3.1.2 Undergraduate Instruction

- Logic for Computer Scientists. Fall 2025. Professor.
- Introduction to Software Engineering. Spring 2024. Professor.
- Data Structures. Summer 2018. Adjunct Lecturer.
- Discrete Structures and their Algorithms. Fall 2017. Adjunct Lecturer.
- Discrete Structures and their Algorithms. Spring 2015, Spring 2016. Teaching Assistant.
- Introduction to Computer Science II. Spring 2016, Summer 2016. Lab Instructor, Teaching Assistant.
- Introduction to Computer Science I. Spring 2016, Summer 2016. Lab Instructor, Teaching Assitant.
- Logic for Computer Scientists. Fall 2015. Teaching Assistant.
- General Physics II. Spring 2014. Teaching Assistant.

3.2 Supervision

3.2.1 Graduate Supervision

Students currently supervised. † denotes students who also received their M.S. under my supervision. †† denotes students who also conducted their Departmental Honors Thesis under my supervision.

- Michael McCain, since January 2025. M.S., PhD.

⁴Original course title: Advanced Topics in the Semantic Web

⁵Original course title: *Metadata Representation Languages*

⁶Taught at Kansas State University

- Shreyas Casturi, since August 2024. M.S.
- Chris Davis Jaldi, since August 2024. M.S., PhD.
- Anmol Saini, since May 2024. PhD.^{††}
- Stacie Severyn, since January 2024. PhD.
- Alexis Ellis, since August 2023. PhD.
- Antrea Christou, since September 2022. PhD.[†]

Past students supervised.

- Rakesh Kandula, since June 2023. M.S.
- Brandon Dave, from January 2023 to December 2024. M.S.

3.2.2 Dissertation Committee Membership

Current Dissertation Committee Memberships.

- Spencer M. Seals, since April 2025.
 - Wright State University
 - Advisor: Valerie Shalin.
- Benjamin Holmes, since August 2024.
 - Wright State University
 - Advisor: Dr. Michael L. Raymer.

Jury Memberships.

- Rafael Barata Patronilo, May 2025.

University of Lisbon, Portugal.

Advisor: Matthias Knorr.

Past Dissertation Committee Memberships.

- Christopher Menart, from August 2024 to December 2024.

Wright State University

Advisor: Dr. Michael L. Raymer.

- Nourhan Abouzahra, from January 2023 to December 2024.

Air Force Institute of Technology.

Advisor: Dr. Michael E. Miller.

3.2.3 Thesis Committee Membership

- Bibek Raj Joshi, since April 2024. Wright State University.

Advisor: Dr. Lingwei Chen.

3.2.4 Graduate Teaching Assistants

- Joseph "Joey" Sodergren, Fall 2024.
 Introduction to Software Engineering.
- Satvik Gogigeni, Spring 2024.
 Introduction to Software Engineering.

3.3 Undergraduate Supervision

3.3.1 Undergraduate Scientific Programmer

- Jon Cole, from May 2024 to August 2024.
- Anmol Saini, from December 2023 to April 2024.
- Evan Music, from December 2022 to December 2023.
- Josh Quaintance, from December 2022 to May 2023.

3.3.2 Undergraduate Research Assistant

- Michael McCain, from January 2024 to December 2024.
 Wright State University
- Andrew Eells, from January 2020 to July 2022.
 Kansas State University.
- Riley Mueller, from January 2020 to July 2020.
 Kansas State University.
- Quinn Hirt, from January 2018 to July 2020.
 Wright State University.
- Corbin McGuire, from May 2017 to June 2018.
 Wright State University.

3.3.3 LSAMP⁷ Scholars

- David Castro, since February 2025.
- Divine Eziolese, since October 2023.
- Dennis Young, from January 2024 to May 2024.
- Ryann Crockett, since May 2023 to December 2024.

3.4 Departmental Honors (Baccalaureate) Thesis

- Michael McCain, from January 2024 to December 2024.
 Capstone: Assessing Land Valuation in Ohio using KnowWhereGraph.
- Anmol Saini, from January 2023 to May 2024.
 Capstone: Towards a Knowledge Graph Powered Chatbot.

⁷Louis Stokes Alliances for Minority Participation

3.5 Mentorship & Guidance

- Abhilekha Dalal, from August 2019 to July 2022.
 Kansas State University.
- Sulogna Chowdhury, from January 2020 to July 2022.
 Kansas State University.
- Sri Jitendra Satpathy, from January 2020 to July 2020.
 Master's Thesis, Rules with Right Hand Existential or Disjunction with ROWLTab
- Rama Someswar Chittella, from May 2018 to July 2019.
 Master's Thesis, Leveraging Schema Information for Improved Knowledge Graph Navigation

3.6 Non-research Roles

- Elham Ghiasi, since October 2024. Program Coordinator Assistant.

4 Research Community Activities & Service

4.1 Journal Management & Editorial Boards

- Semantic Web, IOS Press, Managing Editor, since 2024.
- Semantic Web, IOS Press, Editor, since 2022.
- Semantic Web, IOS Press, Editorial Assistant, 2017-2022.

4.2 Guest Editorships and Editorial Boards

- Special Issue on Neurosymbolic AI and Ontologies, Neurosymbolic AI, IOS Press, 2024. In Preparation.
- Special Issue on The Prototype Open Knowledge Network, Semantic Web Journal, IOS Press, 2024. In Preparation.
- Special Issue on Education, EdTech, and Knowledge Graphs, Semantic Web Journal, IOS Press, 2023. In Preparation.
- Special Issue on Semantic Web for the Global Food System, Semantic Web Journal, IOS Press, 2021.

4.3 Steering Committees

- Steering Committee, Member, International Conferences on Knowledge Capture, since May 2024.
- Managing Committee, Vice-Chair, Association for Ontology Design and Patterns, since September 2020.

4.4 Event Organization

- Neurosymbolic Al meets Knowledge Graphs, Dagstuhl Seminar. July 20-26, 2025.
- Large Language Models for Knowledge Graph and Ontology Engineering, AAAI Fall Symposium 2024. November 7-9, 2024.

4.5 Conference General Chair

- 13th International Conference on Knowledge Capture, K-CAP 2025, Dayton, OH, USA, December 2025.
- 5th U.S. Semantic Technologies Symposium, US2TS, Dayton, OH, USA, December 2025.
- 2nd Conference on AI for Sustainability, AI4S 2025, virtual, October 2025.

4.6 Conference Organizing Committee

- Resources Chair for the 24th International Semantic Web Conference, ISWC 2025, Nara, Japan, November 2025.
- Resources Chair for the 21st Extended Semantic Web Conference, ESWC 2025, Portoroz, Slovenia June 2025.
- Treasurer for the 11th International Conference on Knowledge Capture, virtual, December 2025.
- Web & Publicity Chair for the 18th Extended Semantic Web Conference, ESWC 2021, virtual, June 2021.

4.7 Conference Area/Track Chair

- The Web Conf 2025, Semantics Track.
- TheWebConf 2024, Semantics Track.
- ESWC 2021, Ontologies & Reasoning Track.

4.8 Conference Program Committees

- IJCKG 2025, 14th International Joint Conference on Knowledge Graphs.
- HHAI 2025, 4th Hybrid Human Artificial Intelligence.
- RuleML+RR 2025, 9th International Joint Conference on Rules and Reasoning 2025.
- FOIS 2025, 15th International Conference on Formal Ontology in Information Systems.
- ISWC 2024, 23rd International Semantic Web Conference (Research, Resource, Poster & Demo Tracks).
- ICTAI 2024, 34th International Conference on Tools with Artificial Intelligence.
- FOIS 2024, 14th International Conference on Formal Ontology in Information Systems (Main Track).
- NeSy 2024, 18th International Conference on Neural-Symbolic Learning and Reasoning
- ER 2024, 43rd International Conference on Conceptual Modeling (Full Papers Track).
- EKAW 2024, The 24th International Conference on Knowledge Engineering and Knowledge Management (Research Track).
- CIKM 2024, 33rd ACM International Conference on Information and Knowledge Management (Full Research Papers Track).
- ESWC 2024, Extended Semantic Web Conference 2024 (In-Use, Posters & Demos, LLMs for KE Tracks).
- HHAI 2024, 3rd International Conference Series on Hybrid Human-Artificial Intelligence (Full Paper, Working Paper, and Bluesky Tracks).
- The Web Conference (Industry Track).
- AAAI 2024, Association for the Advancement of Artificial Intelligence.
- K-CAP 2023, 12th International Conference on Knowledge Capture.
- KGSWC 2023, 5th Knowledge Graph and Semantic Web Conference.
- IJCKG 2023, 12th International Joint Conference on Knowledge Graphs (Research Track).
- ISWC 2023, 22nd International Semantic Web Conference (Research and Resource Tracks).

- CIKM 2023, 32nd Conference on Information and Knowledge Management (Long/Full Paper and Short Paper Tracks).
- TheWebConf 2023, The ACM Web Conference: Industry, Workshops, Tutorials, Posters & Demos (Workshop, Poster and Demos, Industry Tracks).
- ESWC 2023, Extended Semantic Web Conference 2023 (In-Use Track).
- FOIS 2023, 13th International Conference on Formal Ontologies in Information Systems (Research Track).
- KGSWC 2022, Knowledge Graph and Semantic Web Conference.
- IJCKG 2022, 11th International Joint Conference on Knowledge Graphs.
- EKAW 2022, 23rd International Conference on Knowledge Engineering and Knowledge Management.
- ISWC 2022, 21st International Semantic Web Conference (Research and Resource Tracks).
- CIKM 2022, ACM International Conference on Information and Knowledge Management (Short Paper Track).
- The Web Conference 2022 (Poster-Demo Track).
- K-CAP 2021, 11th International Conference on Knowledge Capture.
- ISWC 2021, 20th International Semantic Web Conference (Research and Resource Tracks).
- KGSWC 2021, Iberoamerican Knowledge Graph and Semantic Web Conference.
- ISIC 2021, 1st International Semantic Intelligence Conference.
- CIKM 2021, 30th ACM International Conference on Information and Knowledge Management (Resource Track).
- FOIS 2021, 12th International Conference on Formal Ontology in Information Systems (Foundations, "Applications and Methods", and Domain Ontology Tracks).
- KGSWC 2021, 2nd Indo-American Knowledge Graph and Semantic Web.
- ISIC 2021, 1st International Semantic Intelligence Conference.
- FOIS 2020, 11th International Conference on Formal Ontology in Information Systems (Technical Track).
- ISWC 2020, 19th International Semantic Web Conference (Research, Resource and "Posters & Demos" Tracks).
- EKAW 2020, 22nd International Conference on Knowledge Engineering and Knowledge Management.
- K-CAP 2019, 10th International Conference on Knowledge Capture.

4.9 Doctoral Consortium Program Committees or Mentoring

- Doctoral Consortium at ESWC 2025, Extended Semantic Web Conference 2025.
- Doctoral Consortium at ISWC 2024, 23rd International Semantic Web Conference.
- Doctoral Consortium at ISWC 2021, 20th International Semantic Web Conference.

4.10 Workshop Organizing Committee

 16th Workshop on Ontology Design and Patterns, WOP 2025, at ISWC 2025, Nara, Japan, November 2025 (Paper Co-Chair).

- 15th Workshop on Ontology Design and Patterns, WOP 2024, at ISWC 2024, Baltimore, MD, USA, November 2024 (General Chair).
- 1st Workshop on the Semantic Web in Practice: Tools and Pedagogy, PRAXIS 2020, at ISWC 2020, Athens, Greece, November 2020 (General Chair).
- 11th Workshop on Ontology Design and Patterns, WOP 2020, at ISWC 2020, Athens, Greece, November 2020 (Paper Co-Chair).
- 10th Workshop on Ontology Design and Patterns, WOP 2019, at ISWC 2019, Auckland, New Zealand, October 2019 (Patterns Co-Chair).

4.11 Workshops Program Committees

- KG4S 2025, 3rd Workshop on Knowledge Graphs for Sustainability.
- KG4S 2024, 2nd Workshop on Knowledge Graphs for Sustainability.
- GeoKG & GeoAl 2023, 2nd International Workshop on Geospatial Knowledge Graphs and GeoAl: Methods, Models, and Resources.
- SemREC 2022, Semantic Reasoning Evaluation Challenge, co-located with ISWC 2022, virtual.
- FOHTI 2022, FAIR ontology harmonization and TRUST data interoperability Workshop, virtual.
- WOP 2022, 13th Workshop on Ontology Design and Patterns, co-located with ISWC 2022, virtual.
- GeoKG 2022, 1st ACM SIGSPATIAL International Workshop on Geospatial Knowledge Graphs, virtual.
- JOWO 2022, The Eight Joint Ontology Workshops, virtual.
- MK 2022, Workshop on Modular Knowledge, co-located with ISWC 2022, virtual.
- DECOR 2022, Data Engineering meets Intelligent Food and Cooking Recipes 2022, virtual.
- SemREC 2021, Semantic Reasoning Evaluation Challenge (SemREC) co-located with ISWC 2021, virtual.
- DaMaLOS 2021, 2nd Workshop on Data and research objects management for Linked Open Science, co-located with ISWC 2021, virtual.
- DECOR 2021, Data Engineering meets Intelligent Food and Cooking Recipes 2021, virtual.
- GEOKG 2021, The 1st International Workshop on Methods, Models, and Resources for Geospatial Knowledge Graphs and GeoAl, co-located with GIScience 2021, virtual.
- DECOR 2020, Data Engineering meets Intelligent Food and Cooking Recipes 2020, virtual.
- TERECOM 2018, 2nd Workshop on Technologies for Regulatory Compliance, co-located with JURIX 2018, Groningen, Netherlands, Decemember 2018.
- WOP 2018, 9th Workshop on Ontology Design and Patterns, co-located with ISWC 2018, Monterey, California, USA, October 2018.
- WOP 2017, 8th Workshop on Ontology Design and Patterns, co-located with ISWC 2017, Vienna, Austria, October 2017.

4.12 Emergency Reviewing or Subreviewing

 ISWC 2019, 18th International Conference on the Semantic Web, Auckland, New Zealand, 2019.

- KGSWC 2019, 1st Iberoamerican Knowledge Graph and Semantic Web Conference, Villa Clara, Cuba, 2019.
- EKAW 2018, 21st International Conference on Knowledge Engineering and Knowledge Management, Nancy, France, 2018.
- K-CAP 2017, 9th International Conference on Knowledge Capture, Austin, Texas, USA, 2017.
- ISWC 2017, 16th International Conference on the Semantic Web, Vienna, Austria, 2017.
- EKAW 2016, 20th International Conference on Knowledge Engineering and Knowledge Management, Bolonga, Italy, 2016.

4.13 Panel Chairing

The Praxis of Teaching Knowledge Graphs, Knowledge Graph Conference, 2023. Panelists:
 Timm Capstein, Florence D. Hudson, Ora Lassila.

4.14 Reviewing of Project Proposals

- Project proposals reviewer, Israel Science Foundation (ISF), 2023-2025.
- Project proposals reviewer, Dutch Science Foundation, 2025.
- Project proposals reviewer, National Science Foundation (NSF), 2021-2025.
- Project proposals reviewer, European Research Council (ERC), 2022.
- Project proposals reviewer, Deutsche Forschungsgemeinschaft (German Research Foundation, DFG, DE), 2022-2023.
- Project proposals reviewer, Agence Nationale de la Recherche (National Research Agency, ANR, France), 2022,2023.

4.15 Reviewing of Book Proposals and Manuscripts

- Book proposals for Elsevier.
- Book proposals for IOS Press.
- Book proposals for CRC Press/Chapman & Hall.
- Book manuscripts for CRC Press/Chapman & Hall.

4.16 Further Reviewing

- Senior Chair Renewal, Université of Côte d'Azur, 2023.

4.17 Service at Wright State University

- Scholarship Committee, Department of Computer Science and Engineering, since 2024.
- Advisory Board Member, Center for Faculty Excellence, since 2023.
- Woods Committee, Wright State University, since 2023.
- Graduate Studies Committee, Department of Computer Science and Engineering, since 2022.

- Faculty Search Committee, Department of Computer Science and Engineering, since 2022.
- Undergraduate Curriculum Committee (Student Representative), College of Engineering and Computer Science, 2016-2017.
- Graduate Curriculum Committee (Student Representative), College of Engineering and Computer Science, 2016-2019.

4.18 Selected Memberships

- Since 2020, member of the Association for Computing Machinery.
- Since 2020, member of the American Geophyiscal Union.

5 Presentations

5.1 Keynotes

- Advances in Knowledge Engineering with Large Language Model: A Case for Modularity, KG-NeSy: Knowledge Graphs and Neurosymbolic Al Workshop @ SEMANTICS, Vienna, Austria, September 2025.
- 2. Modular Ontology Modeling, SemTech 2025, Delhi, IN, February 2025.
- 3. KnowWhereGraph for Sustainability (KWG4S), KG4S@ESWC 2024, Hersonnisos, Greece, May 2024.
- 4. Perspectives on Leveraging LLMs for Knowledge Engineering, WOP@ISWC 2023, Athens, Greece, November 2023.

5.2 Invited Talks

- 1. Integrating Human Factors Engineering and Knowledge Engineering, Örebo University, Sweden, June 2025.
- 2. Accelerating Knowledge Graph and Ontology Engineering with Large Language Models, Committee on Semantic Technologies, ESIP, April 2025.
- 3. Accelerating Knowledge Graph and Ontology Engineering with Large Language Models, FIZ Karlsruhe, DE, January 2025.
- 4. Identifying Hurdles in Knowledge Graph Education, STIDS 2024, George Mason University, Fairfax, VA, USA, October 2024.
- 5. Neurosymbolic Ontology and Knowledge Graph Construction, Kansas State University, Manhattan, KS, USA, December 2023.
- 6. KnowWhereGraph and Beyond: Can Knowledge Graphs provide Situational Awareness for Epidemic Intelligence? EIOS Global Technical Meeting, Luxor, Egypt, November 2022.
- 7. Knowledge Graphs and Open Knowledge Networks, Data Sharing and Cyberinfrastructure Working Group, Big Data Innovation Hub Network, Online, June 2022.
- 8. Modular Ontology Engineering. Post-Pandemic Computational Sciences: Challenges and Opportunities, VIT Bhopal University, online, June 2020.
- 9. Modular Ontology Engineering. CS 520: Knowledge Graphs, Stanford University, online, April 2020.
- 10. Modular Ontology Engineering. Laboratory for Knowledge Discovery in Databases, Manhattan, Kansas, USA, April 2020.
- 11. CoModIDE. US2TS 2020, 3rd United States Semantic Technologies Symposium, Raleigh, North Carolina, USA, March, 2020.

5.3 Tutorials & Seminars

- 1. Eva Blomqvist, Andrea G. Nuzzolese, **Cogan Shimizu**. *Same Data; Different Model*. Tutorial at ISWC 2024, Baltimore, MD, USA, November 2024.
- 2. Zilong Liu, Meilin Shi, Shirly Stephen, **Cogan Shimizu**, and Zhangyu Wang. *Knowing Where via Knowledge Graph–based Geo-Enrichment*. Tutorial at ISWC 2023, Athens, Greece, November 2023.

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3. Torsten Hamman, Hande McGinty, and **Cogan Shimizu**. *Same Data; Different Model*. Tutorial at TheWebConf 2022, Austin, TX, USA, May 2022.

- 4. Karl Hammar and **Cogan Shimizu**. *Modular Ontology Engineering with CoModIDE*. Tutorial at ESWC 2020, Heraklion, Greece, June 2020.
- 5. **Cogan Shimizu** and Evan Wallace, Identifying Best Practices in Multi-paradigm Ontology Family Development. 3rd United States Semantic Technologies Symposium (US2TS).
- 6. **Cogan Shimizu**, Gary Berg-Cross, Charles F. Vardemann II, Leah McEwen, Hande Küçük-McGinty, Identifying Cross Domain Ontology Design Patterns. 2nd United States Semantic Technologies Symposium (US2TS).
- 7. Karl Hammar, Pascal Hitzler, Md Kamruzzaman Sarker, **Cogan Shimizu**. *Methods and Tools for Modular Ontology Modeling*. Tutorial at ISWC 2018, Monterey, CA, USA, October 2018.

5.4 Invited Panel Participation

- 1. TIKA 2025, Translational Insitute for Knowledge Axiomatization, Workshop at AAAI-2025. (Invited Panelist on *Education for Knowledge Axiomatization*)
- 2. TIKA 2025, Translational Insitute for Knowledge Axiomatization, Workshop at AAAI-2025. (Invited Moderator for *Knowledge Curation with Manual, ML, and LLM methods*)