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Postdoctoral Fellow
Center for Artificial Intelligence and Data Science
Department of Computer Science
Kansas State University, Manhattan, KS 66506, USA

August 2020

Curriculum Vitae

Scientific Education

08.2020–07.2021	Postdoctoral Fellow Center for Artificial Intelligence and Data Science Department of Computer Science Kansas State University, USA
08.2019–07.2020	Graduate Research Assistant 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
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 & Awards

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=PlBF5eQAAAAJ
DBLP	https://dblp.uni-trier.de/pers/hd/s/Shimizu:Cogan

Contents

1   Projects & Funding

1.1   Acquired Funding – Contributions to the Project Proposal

- EAGER: Open Science Data in Semantic Web Research.
  National Science Foundation. September 2020 to August 2022.
  Role: Co-PI, main proposal author. Funding: $299,729
- Modular Ontology Modeling for Food Supply Chains.
  National Institute for Standards and Technology (NIST). September 2019 to May 2020.
  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: PI.
  Funding: $121,940

1.2   Fellowships and Scholarships

- Graduate Student Council Fellowship
  Wright State University, May 2016 to July 2017.
  Amount: $12,000
- NAECON Grant
  May 2015 to July 2016.
- Kittyhawk Scholarship
  May 2015 to July 2016.
- Ohio College Opportunity Scholarship
  May 2015 to July 2016.

1.3   Further Project Involvement

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

2 Publications

2.1 Journal Articles

1. Cogan Shimizu, Pascal Hitzler, Quinn Hirt, Dean Rehberger, Seila Gonzalez Estrecha, Catherine Foley, Alicia M. Sheill, Walter Hawthorne, Jeff Mixter, Ethan Watrall, Ryan Carty, Duncan Tarr, The Enslaved Ontology: Peoples of the Historic Slave Trade. Journal of Web Semantics 63, 2020.
2. Cogan Shimizu, Pascal Hitzler, Krzysztof Janowicz, A Closer Look at the Semantic Web Journal's Review Process. Semantic Web 10 (1), 2019, 1–7.

2.2 Conference Papers

3. Cogan Shimizu, Karl Hammar, Pascal Hitzler, Modular Graphical Ontology Engineering Evaluated. In: Proceedings ESWC 2020, pp. 20–35.
4. Aaron Eberhart, Monireh Ebrahimi, Lu Zhou, Cogan Shimizu, Pascal Hitzler, Completion Reasoning Emulation for the Description Logic EL+. In: Proceedings of the 2020 AAAI Spring Symposium on Combining Machine Learning and Knowledge Engineering in Practice (1), 2020.
5. Cogan Shimizu, Aaron Eberhart, Nazifa Karima, Quinn Hirt, Adila A. Krisnadhi and Pascal Hitzler, A Method for Automatically Generating Schema Diagrams for Modular Ontologies. In: Boris Villazon-Terrazas, Yusniel Hidalgo-Delgado (eds.), Knowledge Graphs and Semantic Web – First Iberoamerican Conference, KGSWC 2019, Villa Clara, Cuba, June 23-30, 2019, Proceedings. Communications in Computer and Information Science Vol. 1029, Springer, Heidelberg, 2019, pp. 149–161.
6. Garrett Goodman, Cogan Shimizu, Iosif Papadakis Ktistakis, Constrained State-Preserved Extreme Learning Machine. In: 31st IEEE International Conference on Tools with Artificial Intelligence, ICTAI 2019, Portland, Oregon, USA, November 4-6, 2019, Proceedings. IEEE, 2019.
7. Garrett Goodman, Tanvi Banerjee, William Romine, Cogan Shimizu, Jennifer Hughes, Caregiver Assessment Using Smart Gaming Technology: A Feasibility Study. In: Proceedings for the 2019 IEEE International Conference on Fuzzy Systems FUZZ-IEEE 2019, New orleans, Lousiana, USA, June 23-26, 2019. IEEE, 2019.
8. Cogan Shimizu, Quinn Hirt, 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, Mehwish Alam (eds.): The Semantic Web: ESWC 2018 Satellite Events - ESWC 2018 Satellite Events, Heraklion, Crete, Greece, June 3-7, 2018, Revised Selected Papers. Lecture Notes in Computer Science 11155, Springer, Heidelberg, 2018, pp. 23–27.
9. Pascal Hitzler, Cogan Shimizu, Modular Ontologies As A Bridge Between Human Conceptualization and Data. In: Peter Chapman, Dominik Endres, Nathalie Pernelle: Graph-Based Representation and Reasoning – 23rd International Conference on Conceptual Structures, ICCS 2018, Edinburgh, UK, June 20-22, 2018, Proceedings. Lecture Notes in Computer Science 10872, Springer 2018, pp. 3–6.
10. Cogan Shimizu, Pascal Hitzler, Matthew Horridge, Rendering OWL in Description Logic Syntax. In: Eva Blomqvist, Katja Hose, Heiko Paulheim, Agnieszka Lawrynowicz, Fabio Ciravegna, Olaf Hartig (eds.), The Semantic Web: ESWC 2017 Satellite Events, Portoroz, Slovenia, May 28 – June 1, 2017, Revised Selected Papers. Lecture Notes in Computer Science volume 10577, Springer, Heidelberg, 2017, pp. 109-113.

2.3 Book Contributions

11. Cogan Shimizu, Pascal Hitzler, Adila Krisnadhi, Modular Ontology Modeling: A Tutorial. Book chapter, to appear.
12. Iosif Papadakis Ktistakis, Garrett Goodman, Cogan Shimizu, Methods for Optimizing Fuzzy Inference Systems. Book chapter, to appear.
13. Cogan Shimizu, Pascal Hitzler, Ontology-based Data Organization for the Enslaved Project. Book chapter, to appear.
14. Michelle Cheatham, Holly Ferguson, Charles F. Vardeman II, Cogan Shimizu, A Modification to the Hazardous Situation ODP to Support Risk Assessment and Mitigation. In: 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], Studies on the Semantic Web Vol. 32, IOS Press, 2016.

2.4 Theses

15. Cogan Shimizu, Rendering OWL in LaTeX for Improved Readability: Extensions to the OWLAPI. Thesis, Wright State University, 2017.

2.5 Edited Books

16. Eva Blomqvist, Torsten Hahmann, Karl Hammar, Pascal Hitzler, Rinke Hoekstra, Raghava Mutharaju, Maria Poveda, Cogan Shimizu, Martin Skjaeveland, Monika Solanki, Vojtech Svatek, Lu Zhou (eds.), Advances in Pattern-based Ontology Engineering. Studies on the Semantic Web, IOS Press, 2021, in preparation.

2.6 Journal Edited Issues

17. Applied Ontology, special issue with extended FOIS 2018 papers. S. Borgo, P. Hitzler, O. Kutz, C. Shimizu (eds.). In preparation.

2.7 Edited Workshop Proceedings

18. Cogan Shimizu, Rafael Goncalves, Juan Sequeda, Ruben Verborgh, Workshop on the Semantic Web in Practice: Tools and Pedagogy (1st edition) – PRAXIS 2020. In preparation.
19. Pascal Hitzler, Cogan Shimizu, Torsten Hahmann, Raghava Mutharaju, Monika Solanki, Lu Zhou (eds.), Workshop on Ontology Design and Patterns (11th edition) – WOP 2020. In preparation.
20. Krzysztof Janowicz, Adila Alfa Krisnadhi, María Poveda Villalón, Karl Hammar, Cogan Shimizu (eds.), Workshop on Ontology Design and Patterns (10th edition) – WOP2019. CEUR Workshop Proceedings 2459, CEUR-WS.org, 2019.

2.8 Workshop Contributions

21. Cogan Shimizu, Quinn Hirt, Pascal Hitzler, MODL: a Modular Ontology Design Library. In: Krzysztof Janowicz, Adila Alfa Krisnadhi, María Poveda Villalón, Karl Hammar, Cogan Shimizu (eds.), 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. CEUR Workshop Proceedings 2459, CEUR-WS.org 2019, pp. 47-58.

22. Quinn Hirt, Cogan Shimizu, Pascal Hitzler, Extensions to the Ontology Design Pattern Representation Language. In: Krzysztof Janowicz, Adila Alfa Krisnadhi, María Poveda Villalón, Karl Hammar, Cogan Shimizu (eds.), 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. CEUR Workshop Proceedings 2459, CEUR-WS.org 2019, pp. 76-80.

23. Cogan Shimizu, Pascal Hitzler, Clare Paul, Ontology Design Patterns for Winston's Taxonomy of Part-Whole Relationships.[1] In: Martin Skjaeveland, Yingjie Hu, Karl Hammar, Vojtech Svatek, Agnieszka Lawrynowicz (eds.), WOP 2018, Workshop on Ontology Design and Patterns. 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. CEUR Workshop Proceedings Vol. 2195, 2018.

24. Cogan Shimizu, Leah McEwen, Quinn Hirt, Towards a Pattern-Based Ontology for Chemical Laboratory Procedures. In: Martin Skjaeveland, Yingjie Hu, Karl Hammar, Vojtech Svatek, Agnieszka Lawrynowicz (eds.), WOP 2018, Workshop on Ontology Design and Patterns. 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. CEUR Workshop Proceedings Vol. 2195, 2018.

25. Cogan Shimizu, Michelle Cheatham, An Ontology Design Pattern for Microblog Entries. In: Eva Blomqvist, Óscar Corcho, Matthew Horridge, David Carral, Rinke Hoekstra (eds.), WOP 2017, WorkShop on Ontology Design and Patterns. Proceedings of the 8th Workshop on Ontology Design and Patterns co-located with the 16th International Semantic Web Conference (ISWC 2017), Vienna, Austria, October 21, 2017. CEUR Workshop Proceedings Vol. 2043, 2017.

2.9 Software Demonstrations

26. Cogan Shimizu, Karl Hammar, CoModIDE - The Comprehensive Modular Ontology Engineering IDE. Software Demonstration at ISWC 2019, Auckland, New Zealand, October 2019

27. Cogan Shimizu, Quinn Hirt, Pascal Hitzler, A Protégé Plug-In for Annotating OWL Ontologies with OPLa. Software Demonstration at ESWC 2018, Heraklion, Greece, June 2018.

28. Cogan Shimizu, Pascal Hitzler, Matthew Horridge, Rendering OWL in Description Logic Syntax. Software Demonstration at ESWC 2017, Vienna, Austria, October 2017.

2.10 Project Reports and Deliverables

29. Cogan Shimizu, Pascal Hitzler, Quinn Hirt, Alicia Sheill, Seila Gonzalez, Catherine Foley, Dean Rehberger, Ethan Watrall, Walter Hawthorne, Duncan Tarr, Ryan Carty, Jeff Mixter, The En-

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[1] This paper won the workshop's Best Pattern Paper Award.

slaved Ontology 1.0: People of the Historic Slave Trade. Enslaved Project Technical Report, enslaved.org, 8 April 2019.

30. Garrett Goodman, Abby Edwards, Cogan Shimizu, Tanvi Banerjee, Jennifer Hughes, William L. Romine, Larry Lawhorne, Caregiver Assessment Using Smart Gaming Technology: A Preliminary Approach. Technical Report, CoRR abs/1802.03051, 2018.

3 Research Community Activities

3.1 Workshop Chair/Organiser

- 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).

3.2 Conference Programme Committees

- ISIC 2021, 1st International Semantic Intelligence Conference, New Delhi, India, 2021.
- FOIS 2020, 11th International Conference on Formal Ontology in Information Systems, Bolzano, Italy, 2020. (Technical Track)
- ISWC 2020, 19th International Semantic Web Conference, Athens, Greece, 2020. (Research Track)
- ISWC 2020, 19th International Semantic Web Conference, Athens, Greece, 2020. (Posters & Demos Track)
- ISWC 2020, 19th International Semantic Web Conference, Athens, Greece, 2020. (Resource Track)
- K-CAP 2019, 10th International Conference on Knowledge Capture, Marina del Rey, California, USA, 2019.
- K-CAP 2017, 9th International Conference on Knowledge Capture, Austin, Texas, USA, 2017.

3.3 Workshops Programme Committees

- GEOKG 2020, The 1st International Workshop on Methods, Models, and Resources for Geospatial Knowledge Graphs and GeoAI co-located with GIScience 2020, virtual.
- DECOR 2020, Data Engineering meets Intelligent Food and Cooking Recipes 2020, virtual.
- TERECOM 2018, 2nd Workshop on Technologies for Regulatory Compliance, at JURIX 2018, Groningen, Netherlands, Decemember 2018.
- WOP 2018, 9th Workshop on Ontology Design and Patterns, at ISWC 2018, Monterey, California, USA, October 2018.
- WOP 2017, 8th Workshop on Ontology Design and Patterns, at ISWC 2017, Vienna, Austria, October 2017.
- WOP 2016, 7th Workshop on Ontology and Semantic Web Patterns, at ISWC 2016, Kobe, Japan, October 2016.

3.4 Community Service

- Editorial Assistant, Semantic Web journal. August 2017-Present.

Reviewing for Conferences and Workshops (not as PC member)

- 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.
- ESWC 2018, 15th ESWC, Heraklion, Greece, 2018.
- EKAW 2018, 21st International Conference on Knowledge Engineering and Knowledge Management, Nancy, France, 2018.
- 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 Presentations

4.1 Invited Talks

1. Cogan Shimizu, Modular Ontology Engineering. CS 520: Knowledge Graphs, Stanford University, online, April 2020.
2. Cogan Shimizu, Modular Ontology Engineering. Laboratory for Knowledge Discovery in Databases, Manhattan, Kansas, USA, April 2020.
3. Cogan Shimizu, CoModIDE. US2TS 2020, 3rd United States Semantic Technologies Symposium, Raleigh, North Carolina, USA, March, 2020.

4.2 Tutorials & Seminars (through regular proposal process)

4. Cogan Shimizu and Karl Hammar, 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 KÃ¼Ã§Ã¼k-McGinty, Identifying Cross Domain Ontology Design Patterns. 2nd United States Semantic Technologies Symposium (US2TS).
7. K. Hammar, P. Hitzler, Md K. Sarker, C. Shimizu, Methods and Tools for Modular Ontology Modeling. Tutorial at the 17th International Semantic Web Conference, ISWC 2018, Monterey, CA, USA, October 2018.

5 Teaching

5.1 Teaching

5.1.1 Department of Computer Science, Kansas State University

- *Knowledge Representation for the Semantic Web*. Fall 2020.
  Co-Instructor.
- *Knowledge Representation for the Semantic Web*. Fall 2019.
  Co-Instructor.

5.1.2 Department of Computer Science and Engineering, Wright State University

- *Data Structures*. CEG 3100. Summer 2018.
  Instructor.
- *Discrete Structures and their Algorithms*. CS 2200. Fall 2017.
  Instructor.
- *Logic for Computer Scientists*. CS 2210. Fall 2015.
  Teaching Assistant.
- *Discrete Structures and their Algorithms*. CS 2200. Fall 2015, Spring 2016.
  Teaching Assistant.
- *Introduction to Computer Science II*. CS 1181. Spring 2016, Summer 2016.
  Lab Instructor, Teaching Assistant.
- *Introduction to Computer Science I*. CS 1180. Spring 2016, Summer 2016.
  Lab Instructor, Teaching Assitant.
- *General Physics II* PHYS 2480. Spring 2015.
  Teaching Assistant.

5.2 Committee Participation at Wright State University

- College of Engineering and Computer Science, Undergraduate Curriculum Committee. Spring 2016 to Fall 2017 (Student Representative).
- College of Engineering and Computer Science, Graduate Curriculum Committee. Spring 2018 to Summer 2019 (Student Representative).

5.3 Undergraduate Supervision

5.3.1 Department of Computer Science, Kansas State University

- Andrew Eells, since January 2020.
- Riley Mueller, from January 2020 to July 2020.

5.3.2 Department of Computer Science and Engineering, Wright State University

- Quinn Hirt, from January 2018 to July 2020.
- Corbin McGuire, from May 2017 to June 2018.