Stylianos Loukas Vasileiou

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RESEARCH INTERESTS

Human-Aware AI: Explainable Decision-Making, Collaborative Decision-Making, User Modeling

Knowledge Representation & Reasoning: Formal Logic, Argumentation, Planning, Belief Revision

Other: Neuro-symbolic AI

EDUCATION

Ph.D. in Computer Science	FL' 2018 – SP' 2025
Washington University in St. Louis	St. Louis, USA
M.S. IN ARTIFICIAL INTELLIGENCE	FL' 2016 – FL' 2017
University of Southampton	Southampton, UK
M.S. IN APPLIED MATHEMATICS	FL' 2015 – FL' 2016
University of Glasgow	Glasgow, UK
B.S. IN STATISTICS AND ACTUARIAL—FINANCIAL MATHEMATICS University of the Aegean	FL' 2010 – FL' 2014 Samos, GR

PROFESSIONAL EXPERIENCE

New Mexico State University	2025 -
Assistant Professor, Department of Computer Science	Las Cruces, USA

PUBLICATIONS

Preprints & Under Review

- [1] Ben Rachmut, **Stylianos Loukas Vasileiou**, Nimrod Meir Weinstein, Roie Zivan, and William Yeoh. "Explainable Distributed Constraint Optimization Problems". In: *arXiv preprint arXiv:2502.14102.* 2025.
- [2] Yinxu Tang, **Stylianos Loukas Vasileiou**, Derkinderen Vincent, and William Yeoh. "Model Reconciliation via Cost-Optimal Explanations in Probabilistic Logic Programming". In: 2025.
- [3] **Stylianos Loukas Vasileiou**, Antonio Rago, Maria Vanina Martineze, and William Yeoh. "How Do People Revise Inconsistent Beliefs? Towards a More Human-Aware Belief Revision". In: *arXiv* preprint *arXiv*:2405.19238. 2024.
- [4] **Stylianos Loukas Vasileiou**, William Yeoh, Alessandro Previti, and Tran Cao Son. "On Generating Monolithic and Model Reconciling Explanations in Probabilistic Scenarios". In: arXiv preprint arXiv:2405.19229. 2024.
- [5] Yinxu Tang, **Stylianos Loukas Vasileiou**, William Yeoh, Alberto Pozanco, and Daniel Borrajo. "A Proactive-Reactive Framework for Fairness-Aware Lifelong Meeting Scheduling". In: 2024.

Journal Articles

[1] **Stylianos Loukas Vasileiou**, William Yeoh, Tran Cao Son, Ashwin Kumar, Michael Cashmore, and Daniele Magazzeni. "A Logic-based Explanation Generation Framework for Classical and Hybrid Planning Problems". In: *Journal of Artificial Intelligence Research (JAIR)* (2022).

Conference Papers

- [1] Antonio Rago, **Stylianos Loukas Vasileiou**, Francesca Toni, William Yeoh, and Tran Cao Son. "A Methodology for Incompleteness-Tolerant and Modular Gradual Semantics for Argumentative Statement Graphs". In: *International Conference on Principles of Knowledge Representation and Reasoning*. 2025.
- [2] **Stylianos Loukas Vasileiou** and William Yeoh. "A Hybrid Logic-LLM System for Explainable Course Scheduling". In: *International Conference on Principles of Knowledge Representation and Reasoning*. 2025.
- [3] **Stylianos Loukas Vasileiou** and William Yeoh. "TRACE-cs: A Synergistic Approach to Explainable Course Scheduling Using LLMs and Logic". In: *AAAI Conference on Artificial Intelligence (Demo Track)*. 2025.
- [4] Yinxu Tang, **Stylianos Loukas Vasileiou**, and William Yeoh. "Does Your AI Agent Get You? A Personalizable Framework for Approximating Human Models from Argumentation-based Dialogue Traces". In: *AAAI Conference on Artificial Intelligence*. 2025.
- [5] Stylianos Loukas Vasileiou, Ashwin Kumar, William Yeoh, Tran Cao Son, and Francesca Toni. "Dialectical Reconciliation via Structured Argumentative Dialogues". In: International Conference on Principles of Knowledge Representation and Reasoning. 2024, pp. 777–787.
- [6] Stylianos Loukas Vasileiou, Xu Borong, and William Yeoh. "A Logic-based Framework for Explainable Agent Scheduling Problems". In: European Conference on Artificial Intelligence (ECAI). 2023.
- [7] **Stylianos Loukas Vasileiou** and William Yeoh. "PLEASE: Generating Personalized Explanations in Human-Aware Planning". In: *European Conference on Artificial Intelligence (ECAI)*. 2023.
- [8] Ashwin Kumar, **Stylianos Loukas Vasileiou**, Melanie Bancilhon, Alvitta Ottley, and William Yeoh. "VizXP: A Visualization Framework for Conveying Explanations to Users in Model Reconciliation Problems". In: *International Conference on Automated Planning and Scheduling (ICAPS)*. 2022.
- [9] Stylianos Loukas Vasileiou, Alessandro Previti, and William Yeoh. "On Exploiting Hitting Sets For Model Reconciliation". In: AAAI Conference on Artificial Intelligence. 2021.
- [10] Son Tran Cao, Van Nguyen, Stylianos Loukas Vasileiou, and William Yeoh. "Model Reconciliation in Logic Programs". In: European Conference on Logics in AI (JELIA). 2021.
- [11] Van Nguyen, **Stylianos Loukas Vasileiou**, Son Tran Cao, and William Yeoh. "Conditional Updates of Answer Set Programming and Its Application in Explainable Planning (Extended Abstract)". In: *International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*. 2020.
- [12] Van Nguyen, Stylianos Loukas Vasileiou, Son Tran Cao, and William Yeoh. "Explainable Planning Using Answer Set Programming". In: International Conference on Principles of Knowledge Representation and Reasoning (KR). 2020.
- [13] Son Tran Cao, Van Nguyen, **Stylianos Loukas Vasileiou**, and William Yeoh. "Conditional Updates of Logic Programs and its Applications (Poster Presentation)". In: *International Conference on Principles of Knowledge Representation and Reasoning (KR)*. 2020.

Workshop & Symposium Papers

- [1] Silvia Tulli, **Stylianos Loukas Vasileiou**, Mohamed Chetouani, and Sarath Sreedharan. "Inferring Implicit Goals Across Differing Task Models". In: *International Joint Conference on Artificial Intelligence (IJCAI) Workshop on User-Aligned Assessment of Adaptive AI Systems*. 2025.
- [2] Yinxu Tang, **Stylianos Loukas Vasileiou**, and William Yeoh. "Approximating Human Mental Models During Argumentation-based Dialogues". In: *ICAPS Workshop on Human-aware and Explainable Planning*. 2024.
- [3] Silvia Tulli, **Stylianos Loukas Vasileiou**, and Sarath Sreedharan. "Human-Modeling in Sequential Decision-Making: An Analysis through the Lens of Human-Aware AI". In: *ICAPS Workshop on Human-aware and Explainable Planning*. 2024.
- [4] Andrew Estornell, **Stylianos Loukas Vasileiou**, William Yeoh, and Daniel Borrajo. "Predicting Customer Goals in Financial Institution Services: A Data-Driven LSTM Approach". In: *International Conference on Automated Planning and Scheduling (ICAPS) Workshop on Financial Planning*. 2023.
- [5] **Stylianos Loukas Vasileiou**. "Towards a Logical Account for Human-Aware Explanation Generation in Model Reconciliation Problems". In: *International Conference on Autonomous Agents and Multiagent Systems (AAMAS) Doctoral Consortium.* 2023.
- [6] Stylianos Loukas Vasileiou, Ashwin Kumar, William Yeoh, Son Tran Cao, and Francesca Toni. "DR-HAI: Argumentation-based Dialectical Reconciliation in Human-AI Interactions". In: International Joint Conference on Artificial Intelligence (IJCAI) Workshop on Explainable AI. 2023.
- [7] **Stylianos Loukas Vasileiou**, Ashwin Kumar, and William Yeoh. "On Generating Personalized Explanations via Knowledge Forgetting". In: *International Joint Conference on Artificial Intelligence (IJCAI) Workshop on XAI*. 2022.

- [8] Stylianos Loukas Vasileiou, William Yeoh, Son Tran Cao, and Alessandro Previti. "Explanations as Model Reconciliation via Probabilistic Logical Reasoning". In: International Conference on Principles of Knowledge Representation and Reasoning (KR) Workshop on Explainable Logic. 2021.
- [9] **Stylianos Loukas Vasileiou**, William Yeoh, and Tran Cao Son. "On the Relationship Between KR Approaches for Explainable Planning". In: *International Conference on Automated Planning and Scheduling (ICAPS) Workshop on XAIP*. 2020.
- [10] **Stylianos Loukas Vasileiou**, Son Tran Cao, and William Yeoh. "A Preliminary Logic-based Approach for Explanation Generation". In: *International Conference on Automated Planning and Scheduling (ICAPS) Workshop on Explainable AI Planning*. 2019.

ADVISING

M.S. Students

• Yuxiao Wang

Project title: Generating Natural Language Explanations for Explainable Planning
University: Washington University in St. Louis

• Ruoyao Yang
Project title: Visualizations in Explainable Planning

B.S. Students

• Benjamin Watkins, SP'23 - SU'24 Project title: Proactive Rescheduling with Fairness Guarantees University: Washington University in St. Louis

• Bob Xiao FL'23 – SP'23 Project title: Goal Prediction in Financial Settings

University: Washington University in St. Louis

University: Washington University in St. Louis

• Tanish Agarwal, SU'22

Project title: Fairness-aware Scheduling University: IIT-Delhi (REU)

• Borong Xu FL'22 – SP'23

Project title: Explainable Agent Scheduling Problems University: Washington University in St. Louis

SERVICE

Workshop Organizing Committee

- International Joint Conference on Artificial Intelligence (IJCAI) Workshop on Explainable AI (XAI) 2025
- International Conference on Automated Planning and Scheduling (ICAPS) Workshop on Human-Aware and Explainable Planning (HAXP)

Program Committee/Reviewer

Association for the Advancement of Artificial Intelligence (AAAI)
 European Conference on Artificial Intelligence (ECAI)
 International Joint Conference on Artificial Intelligence (IJCAI)
 International Conference on Autonomous Agents and Multiagent Systems (AAMAS)
 International Conference on Automated Planning and Scheduling (ICAPS)
 Artificial Intelligence Journal (AIJ)
 2024 - 2025
 2023 - 2025
 2022, 2024 - 2025
 2023 - 2025

• Neural Computing and Applications (NCAA) 2025

• IJCAI Workshop on Explainable AI (XAI) 2023 – 2024

• ECAI Workshop on Trustworthy Sequential Decision-making and Pptimization (TSDO) 2024

• ICAPS Workshop on Explainable AI Planning (XAIP) 2020

EVENTS & ACTIVITIES

• Dagstuhl Seminar on Explainable AI for Sequential Decision-Making Sept 2024

• We Belong CS@WashU: Member of the organization team Jan 2020

• Parkway North High School, Saint Louis, MO: Workshop on Introduction to AI Nov 2019