

Research Interests

Human-Aware AI, Human-AI Interaction, Explanation, Logic.

Education

Ph.D. in COMPUTER SCIENCE <i>Thesis (tentative): The Art of Explanation: From Logic to Human-Aware AI Agents</i> <i>Advisor:</i> Prof. William Yeoh Washington University in St. Louis, U.S.A	2018-2024 (Expected)
M.Sc. in ARTIFICIAL INTELLIGENCE <i>Thesis: Asthma Attack Prediction: A Machine Learning Approach</i> <i>Advisor:</i> Prof. Long Tran-Thanh University of Southampton, U.K	2016-2017
M.Sc. in APPLIED MATHEMATICS <i>Thesis: Feedback between Mechanical Contraction and Electrical Excitation in Cardiac Cells</i> <i>Advisor:</i> Prof. Radostin Simitev University of Glasgow, U.K	2015-2016
B.Sc. in STATISTICS AND ACTUARIAL- FINANCIAL MATHEMATICS <i>Thesis: Mathematical Modeling of Micro-Electromechanical Systems</i> <i>Advisor:</i> Prof. Nikolaos Kavalaris University of the Aegean, Greece	2010-2014

Preprints

1. Stylianos Loukas Vasileiou, William Yeoh, Alessandro Previti, and Tran Cao Son. *On Generating Monolithic and Model Reconciling Explanation in Probabilistic Scenario*. (in journal submission)
2. Yinxu Tang, Stylianos Loukas Vasileiou and William Yeoh. *Approximating Human Mental Models During Argumentation-based Dialogues*. (in conference submission)
3. Stylianos Loukas Vasileiou and William Yeoh. *Explanation-based Belief Revision: Moving Beyond Minimalism to Explanatory Understanding*. (in conference submission)

Publications

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. *Journal of Artificial Intelligence Research (JAIR)*, 2022

Conference Papers

7. Stylianos Loukas Vasileiou and William Yeoh. Please: Generating personalized explanations in human-aware planning. In *European Conference on Artificial Intelligence (ECAI)*, 2023

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
5. 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
4. Stylianos Loukas Vasileiou, Alessandro Previti, and William Yeoh. On exploiting hitting sets for model reconciliation. In *AAAI Conference on Artificial Intelligence (AAAI)*, 2021
3. 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
2. 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
1. 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

Workshop Papers (Peer-Reviewed)

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
5. 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
4. 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
3. Stylianos Loukas Vasileiou, William Yeoh, Son Tran Cao, and Alessandro Previti. Explanations as model reconciliation via probabilistic logical reasoning. In *Conference on Principles of Knowledge Representation and Reasoning (KR) Workshop on Explainable Logic*, 2021
2. 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
1. 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

MASTERS STUDENTS

- Ruoyao Yang, MSc. in Computer Science, WashU 2020
Project: *Visualizations in Explainable Planning*

UNDERGRADUATE STUDENTS

- Benjamin Watkins, BSc. in Computer Science, WashU 2023-
Project: *Explainable Re-Scheduling with Fairness Guarantees*
- Bob Xiao, BSc. in Computer Science, WashU 2023
Project: *Goal Prediction in Financial Settings*
- Borong Xu, BSc. in Computer Science, WashU 2022-2023
Project: *Explainable Scheduling*

Service

ORGANIZING COMMITTEE

- International Conference on Automated Planning and Scheduling (ICAPS) Workshop on Human-Aware and Explainable Planning (HAXP) 2023, 2024
- International Conference on Automated Planning and Scheduling (ICAPS) Workshop on Explainable AI Planning (XAIP) 2021-2022

PROGRAM COMMITTEE / REVIEWER

- Association for the Advancement of Artificial Intelligence (AAAI) 2024
- European Conference on Artificial Intelligence (ECAI) 2023
- International Joint Conference on Artificial Intelligence (IJCAI) 2023, 2024
- International Conference on Autonomous Agents and Multiagent Systems (AAMAS) 2020, 2023, 2024
- International Conference on Automated Planning and Scheduling (ICAPS) 2022, 2024
- Artificial Intelligence Journal (AIJ) 2023
- International Joint Conference on Artificial Intelligence (IJCAI) Workshop on Explainable AI (XAI) 2023, 2024
- International European Conference on Artificial Intelligence (ECAI) Workshop on Trustworthy Sequential Decision-making and Pptimization (TSDO) 2024
- International Conference on Automated Planning and Scheduling (ICAPS) Workshop on Explainable AI Planning (XAIP) 2020

OTHER ACTIVITIES

- We Belong CS@WashU: Talk on *Introduction to AI* Sep. 2021
- We Belong CS@WashU: Talk on *Game Playing AI* Jan. 2020
- We Belong CS@WashU: Member of the organization team Jan. 2020
- Parkway North High School (St. Louis, MO): Workshop on *Introduction to AI* Nov. 2019