

## EDUCATION

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### • Doctor of Philosophy, Machine Learning

Sep 2019 - April 2024

Simon Fraser University

GPA 4.21/4.33

## PUBLICATIONS

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### [No \$D\_{\text{train}}\$ : Model-Agnostic Counterfactual Explanations Using Reinforcement Learning](#)

**Xiangyu Sun**, Raquel Aoki, Kevin H. Wilson

TMLR 2025

Keywords: Explainable AI, Reinforcement Learning, Time-Series Data

### [TabReason: A Reinforcement Learning-Enhanced Reasoning LLM for Explainable Tabular Data Prediction](#)

Tommy Xu\*, Zhitian Zhang\*, **Xiangyu Sun\***, Lauren Kelly Zung\*, Hossein Hajimirsadeghi\*, Greg Mori

(\* Equal contribution) ICML 2025 @ Foundation Models for Structured Data Workshop

Keywords: Large Language Models, Explainable AI, Reinforcement Learning, Tabular Data

### [Cause-Effect Inference in Location-Scale Noise Models: Maximum Likelihood vs. Independence Testing](#)

**Xiangyu Sun**, Oliver Schulte

NeurIPS 2023

Keywords: Causality, Flow-Based Generative Models, Tabular Data

### [NTS-NOTEARS: Learning Nonparametric DBNs With Prior Knowledge](#)

**Xiangyu Sun**, Oliver Schulte, Guiliang Liu, Pascal Poupart

AISTATS 2023

Keywords: Causality, Convolutional Neural Networks, Time-Series Data

### [Learning Tree Interpretation From Object Representation for Deep Reinforcement Learning](#)

Guiliang Liu, **Xiangyu Sun**, Oliver Schulte, Pascal Poupart

NeurIPS 2021

Keywords: Explainable AI, Reinforcement Learning, Variational Bayesian Generative Models

### [Cracking the Black Box: Distilling Deep Sports Analytics](#)

**Xiangyu Sun**, Jack Davis, Oliver Schulte, Guiliang Liu

KDD 2020

Keywords: Explainable AI, Knowledge Distillation, Reinforcement Learning, Sports Data