

SEEWON CHOI

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EDUCATION

University of Pennsylvania

Ph.D. in Computer and Information Science

Advisor: Rajeev Alur

Aug 2023 - Present

Philadelphia, US

University of Cambridge

B.A. in Computer Science

Dissertation: *Encoding Representations of Propositional Logic*

· Supervisor: Mateja Jamnik

Academic Record: Class I

Honors: Rosemary Murray Scholarship (2020, 2021, 2022)

Oct 2019 - June 2022

Cambridge, UK

RESEARCH INTERESTS

My research interests lie at the intersection of logic and AI.

- I am focused on enhancing the efficiency and scalability of neurosymbolic learning, a paradigm that combines neural networks with symbolic components to improve accuracy, robustness, and interpretability.
- I am also interested in applying these methods to healthcare, where such qualities are essential for adoption in clinical decision-making.

PREPRINT & PUBLICATIONS

Neurosymbolic Learning

CTSketch: Compositional Tensor Sketching for Scalable Neurosymbolic Learning 📄 🔗

Under Review

S Choi*, Alaia Solko-Breslin*, Rajeev Alur, Eric Wong

Data-efficient Learning with Black-box Programs 📄 🔗 🔗

NeurIPS 2024

Alaia Solko-Breslin, **S Choi**, Ziyang Li, Neelay Velingker, Rajeev Alur, Mayur Naik, Eric Wong

Time Series Forecasting in Healthcare

Stable Prediction of Adverse Events in Medical Time-Series Data

Under Review

S Choi*, Mayank Keoliya*, Rajeev Alur, Mayur Naik, Eric Wong

Generation of Visual Representations for Multi-Modal Mathematical Knowledge 📄 🔗 🔗

AAAI24 Demo

Lianlong Wu*, **S Choi***, Daniel Raggi*, Aaron Stockdill, Grecia Garcia Garcia, Fiorenzo Colarusso, Peter C.H. Cheng, Mateja Jamnik

OTHERS

- **Awards:** Richard Foulke Day Memorial Fellowship (2023)
- **Teaching Experience:** 5200 Machine Learning (25' Fall)