Siddharth Namachivayam

Carnegie Mellon University
Dept. of Philosophy
Pittsburgh, PA

Email: snamachi@andrew.cmu.edu
Website: snamachi.github.io

Interests

Epistemic logic: common knowledge, learning theory, algorithmic randomness, topological semantics

Information aggregation: social choice theory, distributed consensus, scoring rules, prediction markets

Education

Ph.D., Logic, Computation, & Methodology, Carnegie Mellon, Expected 2028.

B.A., Mathematics, Pomona College, 2022.

Works $\in$ Progress

"Topological Semantics for Common Inductive Knowledge"

"Eliciting Causal Bayesian Networks with Scoring Rules"

"Resource Bounded Randomness for Instantiating Cryptographic Security"

Past Research

"Prediction Markets: A Mechanism for Information Aggregation" (Undergraduate Thesis, 2022)

Presentations

Peer-reviewed Conferences:

“Topological Semantics for Common Inductive Knowledge," 12th Workshop on Combining Probability and Logic (PROGIC 2025).

“Topological Semantics for Asynchronous Common Knowledge and Belief," Recent Trends in Logic and Game Theory (RTLG 2025).

Workshops/Seminars:

“Eliciting Causal Bayesian Networks with Scoring Rules," Pittsburgh Formal Epistemology Workshop, (PFEW 2025).

“Resource Bounded Randomness for Instantiating Cryptographic Security," Indian Statistical Institute Chennai Centre Seminar Series (2025).

Fellowships ∪ Awards

Graduate:

ICSD Collaboration Grant (2024)- $7500 to study asynchronous common knowledge

Undergraduate:

Hugh J. Hamilton Prize (2022)- Math department's outstanding graduating student

Kenneth Cooke Fellowship (2020)- $5000 to study the random logistic map

Teaching

Instructor: Logic & Proofs

TA: Decision Analysis, Empirical Research Methods

Grader: Principles of Real Analysis, Game Theory

Employment

Sandia National Labs (2018-2019): Atmospheric Sciences Intern

Sandia National Labs (2017-2018): Computing Research Intern

Skills

Fluent: LaTeX

Proficient: Python, R, Java

Familiar: Solidity, Haskell, Lean

Last updated: December 8, 2025