SPENCER VAN KOEVERING

sv493@cornell.edu

EDUCATION

Cornell University
Ph.D. Computer Science · 2023–2029 expected

Whitman College
B.A. Computer Science with Honors · B.A. Mathematics with Honors · 2017–2021
Minors: Philosophy, Biology
Summa Cum Laude; GPA 3.9

FELLOWSHIPS

Logic in Computing Systems Logic Mentoring Workshop Student Attendee Grant — 2024

Bowers CIS Deans Excellence Fellowship — 2023–

Alexander J. Anderson Merit Scholarship — 2017–2021

National Merit Scholar — 2017–2021

AWARDS

NSF Graduate Research Fellowship Program Honorable Mention — 2025

Outstanding Teaching Assistant Award — Automata Theory, Prof. Dexter Kozen — 2025

Graduated Summa Cum Laude from Whitman College — 2021

Honors in Computer Science — 2021

Honors in Mathematics — 2021

LANGUAGES

Python · Java · C++ · MATLAB · SQL · TypeScript · Rocq · OCaml

PUBLICATIONS

1. Spencer Van Koevering, Wojciech Różowski, and Alexandra Silva. Weighted GKAT: Completeness and complexity, 2025. arXiv:2504.20385 [cs.LO].

2. Spencer Van Koevering, Yiwei Lyu, Wenhao Luo, and John Dolan. Provable probabilistic safety and feasibility-assured control for autonomous vehicles using exponential control barrier functions, 2022. arXiv:2205.03744 [cs.RO].

3. Spencer Van Koevering, Cheng Zhang, Tobias Kappe, and Alexandra Silva. CF-GKAT: A complete calculus for non-local control flow. Manuscript in preparation for ESOP 2027, 2027.

4. Spencer Van Koevering, Kevin Batz, and Alexandra Silva. McNetKAT with nondeterminism: Powerdomains, markov decision processes, and efficient symbolic optimization. Manuscript in preparation for PLDI 2027, 2027.

RESEARCH & INDUSTRY EXPERIENCE

Amazon — May 2025–August 2025
Applied Science Intern — Santa Clara, CA

Amazon — May 2022–June 2023
Software Development Engineer — Seattle, WA

Carnegie Mellon University Robotics Institute — September 2021–May 2022
Research Assistant

Carnegie Mellon University Robotics Institute — May 2021–September 2021
NSF REU Scholar

Amazon — June 2020–November 2020
Software Development Engineer Intern — Seattle, WA

Fred Hutchinson Cancer Research Center — June 2019–September 2019
Research Assistant Intern — Seattle, WA

CONFERENCES AND TALKS

Weighted GKAT: Completeness and Complexity — July 2025
EATCS International Colloquium on Automata, Languages, and Programming — Aarhus, Denmark

Provable Probabilistic Safety and Feasibility-Assured Control for Autonomous Vehicles using Exponential Control Barrier Functions — June 2022
IEEE Intelligent Vehicles Symposium — Aachen, Germany

SERVICE

Cornell University — 2025
TACAS Artifact Review Committee — Ithaca, NY

Cornell University — 2024–
Research Night Speaker — Ithaca, NY

Cornell University — 2026–
MAC Peer Mentor — Ithaca, NY