

Noam Benson-Tilsen

Computer Science, Yale University
New Haven, CT 06511 USA

noam.benson-tilsen@yale.edu
noambt.com

RESEARCH INTERESTS

High-performance computing; Parallel algorithms; Graph algorithms; Database systems.

EDUCATION

2025–2031	Ph.D. in Computer Science , Yale University. Advised by Quanquan C. Liu.
2023–2024	B.A. in Computer Science , Cornell University.
2021–2022	Computer Science and Mathematics , Rensselaer Polytechnic Institute.

PUBLICATIONS

1. Noam Benson-Tilsen. "Dynamic $(\Delta+1)$ Vertex Coloring." arXiv, 2026. <https://doi.org/10.48550/arXiv.2601.07566>. (preprint)
2. Noam Benson-Tilsen, Samuel Brock, Brandon Faunce, Monish Kumar, Noah Dokko Stein and Joshua Zelinsky. *Total Difference Chromatic Numbers of Regular Infinite Graphs*. Involve 2023. <https://doi.org/10.2140/involve.2023.16.765>.

TEACHING

Fall 2024	Head TA , Systems Programming (Cornell CS 4414).
Spring 2024	Undergrad TA , Functional Programming (Cornell CS 3110).
Spring 2023	Independent Tutor , Undergraduate data structures and algorithms.
Fall 2022	Undergrad TA , Introduction to Computer Science (RPI CSCI 1100).

RESEARCH

Aug 2025 –	Graduate Research Assistant , Yale University. Advised by Quanquan C. Liu.
Jan–Aug 2025	Research Staff , Musharoff Research Lab and CornellHPC, Cornell University. High-performance computing research advised by Prof. Giulia Guidi in Cornell's HPC group. Collaboration with Prof. Shaila Musharoff in statistical genetics.
Jun–Dec 2024	BURE Researcher , CornellHPC, Cornell University. High-performance computing research advised by Prof. Giulia Guidi in Cornell's HPC group. Optimized bioinformatics kernel in shared and distributed memory. Supported by BURE research program.
Aug 2023 – May 2024	Undergrad researcher , Birman Lab, Cornell University. Shared-memory slab allocator for Derecho/Cascade. Translated and benchmarked CBDC workloads between architectures, for central bank in Europe. Advised by Professor Ken Birman and Weijia Song.

ACTIVITIES

Oct 2025	PC Member, ALENEX 2026 . Artifact evaluation.
Jul–Aug 2024	Student, Cornell, Maryland, Max Planck Pre-doctoral Research School 2024 .