

Noam Benson-Tilsen

☎ +1 203 999 0322 | ✉ nb498@cornell.edu | 🔗 LinkedIn | 🐙 GitHub | 📍 Ithaca NY

EDUCATION

Cornell University, College of Arts and Sciences

Ithaca, NY

Bachelor of Arts in Computer Science and Mathematics; GPA: 3.86/4.30

Jan 2023 – May 2025

Rensselaer Polytechnic Institute: *Computer Science and Mathematics; GPA: 3.92/4.00*

Sep 2021 – Jan 2023

RELEVANT COURSEWORK

Completed: Abstract Algebra, Analysis of Algorithms, Computer Organization, Data Structures, Formal Logic and AI, Functional Programming, High-Level Digital Design Automation (graduate course in High-Level Synthesis), Linear Algebra, Machine Learning, Probability Theory and Applications, RPI Center for Open Source, Systems Programming
Current: Computer Vision, Honors Introduction to Analysis, Programming Languages & Logics

SKILLS

Software: C/C++, Java, JavaScript (Node.js, Vue.js, Express.js), Julia, MongoDB, OCaml, Python, TypeScript

Technologies: Docker, Git, GitHub, Linux, L^AT_EX, Vim, VS Code

Miscellaneous: Distributed systems, High performance computing (HPC), Microservices, NumPy, PyTorch, R, RStudio, RDMA, SQL, Verilog, Vitis HLS, Vivado

EXPERIENCE

Cornell Bowers College of Computing and Information Science

Ithaca, NY

Teaching Consultant for CS 3110 (Data Structures and Functional Programming)

Jan 2024 – Present

Ω Administer and assist students in intermediate Cornell CS course taught in OCaml

Birman Research Group

Ithaca, NY

Undergraduate Researcher

Aug 2023 – Present

Ω Open-source development in C++ of Cornell's Derecho/Cascade distributed computing framework for running cloud micro-services on server subclusters using RDMA under the supervision of [Prof. Kenneth P. Birman](#) and [Dr. Weijia Song](#)

Ω Developing slab-allocator library in C++ over jemalloc for high-performance shared-memory management

Ω Developing a central bank digital coin (CBDC) for the Bundesbank (German central bank) over CascadeChain, leveraging extremely low latency RDMA datapaths

Collablab Technologies

Remote

Software Engineer Intern

May 2023 – Aug 2023

Ω Led team to develop code-running interface with full terminal functionality for browser-based code-running

Ω Optimized frontend performance by a factor of 2–3, standardized UX/UI, streamlined developer workflow

Ω Contributed to streamlining database structure and reducing cost in API calls by over 30%

Troy Tutors

Remote

Computer Science and Mathematics Tutor

Jan 2023 – Sep 2023

Ω Provided personalized tutoring for RPI students in Data Structures and Foundations of Computer Science

Ω Averaged seven one-hour bookings per week, helping each student excel in coursework

RPI Department of Computer Science

Troy, NY

Undergraduate Programming Mentor

Aug 2022 – Jan 2023

Ω Taught students data structures and programming fundamentals in introductory CS course's weekly office hours and discussion sections

Ω Marked over 150 homeworks or exams weekly

LEADERSHIP

Center for Jewish Living at Cornell

Ithaca, NY

Treasurer, Executive Board

Jan 2024 – Present

Ω Create and execute \$200,000 budget, manage funding from various sources used for social functions

PUBLICATIONS

2023 **Total Difference Chromatic Numbers of Regular Infinite Graphs**

DOI: [10.2140/involve.2023.16.765](#)