Ryan Anselm

Email: ryan.a.anselm@gmail.com | Website: ryboselm.github.io

EDUCATION

UT Austin — 2025 - Present
Ph.D. in Computer Science

NSF Fellow. Research Areas: Quantum Computing, Theoretical Computer Science

Columbia University — 2021 - 2024
B.S. in Computer Science, Magna Cum Laude — ***GPA:*** *4.05/4.33*

Minors: Applied Math, Applied Physics

RESEARCH EXPERIENCE

Summer Research Assistant, CCQ @ Flatiron Institute — May 2024 - Aug. 2024
New York, NY

· Developed memory-efficient tensor network numerical methods in Julia at the Center for Computational Quantum Physics (CCQ).

Columbia Quantum Computing Theory Group — Aug. 2023 - May 2024
New York, NY

· Studied lower bounds for hybrid digital-analog quantum computation and architecture-aware quantum circuit compilation for reconfigurable neutral atom quantum computers under Prof. Henry Yuen.

Summer REU Student, Learning the Earth with AI and Physics — June 2022 - Aug. 2022
New York, NY

· Trained neural networks to emulate cloud microphysics for atmospheric models, culminating in a presentation at the 2022 American Geophysical Union Fall Meeting.

Freshman Research Initiative Fellow, Henkelman Group — Jan. 2021 - Aug. 2021
Austin, TX

· Developed algorithms to efficiently locate charge density saddle points in electronic structure datasets of molecules and crystals as part of Bader, a computational charge analysis code written in Fortran.

PROFESSIONAL EXPERIENCE

Software Engineer, Salesforce AI — Sept. 2024 - Present
San Francisco, CA

· Productionized adaptive response formatting for AI agents at Salesforce AI (Agentforce) using Python, Java, and AI agent frameworks (llama-index).

Teaching Assistant, Columbia Department of Computer Science — Sept. 2022 - May 2024
New York, NY

· Led office hours, graded assignments, and contributed to course content for:
COMS 4232: Advanced Algorithms (Spring 2024), COMS 4281: Intro to Quantum Computing (Fall 2023), COMS 3261: Computer Science Theory (Spring 2023), CSOR 4231: Analysis of Algorithms I (Fall 2022)

Software Engineer Intern, Salesforce May 2023 - Aug. 2023
San Francisco, CA

· Integrated social media platform APIs with Salesforce Data Cloud to streamline campaign management for customers with Java, Spring Boot, SQL, and Docker.

ACTIVITIES & SERVICE

Organizer, Columbia Undergraduate Learning Seminar in Theoretical CS

· Co-organized undergraduate reading group on *quantum complexity theory* (Spring 2024).

Mentee, Columbia Mathematics Directed Reading Program

· Studied percolation theory and its connections to statistical physics with a graduate student mentor.

Co-President, Columbia University Science Olympiad

· Founded a student organization and led a team of 12 to organize a Science Olympiad tournament for 500+ high school students which has been held annually since 2022.
· Wrote 12 Science Olympiad tournament tests as an event supervisor for Columbia, MIT, UT Austin, UPenn, and UPitt invitationals, as well as the 2021 national tournament.

AWARDS

NSF Graduate Research Fellowship	2025
1st Place, 2024 MIT iQuHack Quantum Hackathon	2024
Tau Beta Pi Engineering Honor Society Junior Inductee	2023
Top 500 scorer (Score: 25), William Lowell Putnam Mathematical Competition	2022