Robyn Burger
she/they

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LinkedIn:
Robyn-Burger

EDUCATION

Cornell University - GPA: 3.836   **Aug. 2022 - May 2025 (expected)**
B.A. Mathematics, B.A. Computer Science
- Relevant courses: Lattices (grad.), Networks (grad.), Algorithmic Game Theory (grad.), OOP and Data Structures, Functional Programming, Algorithms, Discrete Math, Computer Systems, Cryptography, Linear Algebra, Multivariable Calculus, Nonlinear Dynamic Systems, Applicable Algebra, Real Analysis
- President, Triphammer Co-op: Manages daily and administrative logistics of 20-person, student-governed residence.
- Cornell Outdoor Education: Instructor for semester-long PE courses for 10-20 students of all levels.

EXPERIENCE

Student Researcher   **Aug. 2024 - Present**
Cornell University CS, Advisors: Dr. Anke Van Zuylen, and Dr. Matthew Eichhorn   *Ithaca, NY*
- Conducts research to improve time complexity of algorithm that finds repeated longest subsequence.
- Keywords: dynamic programming, optimization, linear algebra, string processing, DNA sequencing,

President, ACSU   **Dec. 2023 - Present**
Association of Computer Science Undergraduates, Cornell   *Ithaca, NY*
- Oversees all functions of the largest CS club at Cornell, with over 500 active members.
- Collaborates closely with Cornell faculty, the office of Diversity Equity Inclusion and Belonging, and CS corporate sponsors to strategize, plan, and execute college-wide events such as our annual Research Night, Faculty Luncheon, and student mentorship program. acsu.cornell.edu)

TA, CS4820: Analysis of Algorithms   **Aug. 2024 - Present**
Cornell University CS   *Ithaca, NY*
- Assists with creating and presenting recitations topics such as algorithm design, computability theory
- Holds weekly office hours and grades homework and exams

Algorithms Researcher   **May 2024 - Aug. 2024**
Montana State University, Advisor: Dr. Brendan Mumey   *Bozeman, MT*
- Research Experience for Undergraduates (REU) program, funded by NSF Award No. 2243010
- Created integer linear program to construct phylogeneic trees of tumor samples.
- Implemented algorithm that finds most 'essential' phylogeneic relationships.
- Keywords: Algorithms, combinatorial optimization, integer linear programming, computational biology.

Head TA, CS2800: Discrete Structures   **Jan. 2023 - May 2024**
Cornell University CS   *Ithaca, NY*
- Head TA for CS2800: Discrete Structures/Mathematical Foundations of Computing, 400+ person, core-curriculum CS course which covers proof-writing, induction, logic, probability, and set theory.
- Created rubrics for homework and exams and led team of 15 TAs through grading
- Taught weekly discussion course (∼25 students) and held weekly office hours
- Led review lectures, created supplemental material: robynburger.github.io/cs2800)

Backend Software Engineer   **May 2023 - September 2023**
Web Development Team, SC Johnson College of Business IT
- Spearheaded the modernization of legacy PHP code by implementing Ruby on Rails, JavaScript, HTML
- Navigated extensive codebases, identifying and resolving intricate bugs across multiple servers and programs, presented deliverables each week to the team.

Math Directed Reading Program   **Aug. 2023 - Dec. 2023**
Cornell University, Advisor: Eray Karabiyik
- Conducted collaborative study on elliptic curves and their application to cryptography.

GRANTS & AWARDS
- Recipient of Cornell CS DEIB 2024 "Most Impactful Student" award
- National Center for Women & Information Technology Travel Support Stipend ($2,500)
- Cornell Bowers CIS TAPIA scholarship ($1,500)