# Robyn Burger

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## Education

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| **Cornell University**, M.S. Computer Science | Aug '25 – May '27 |
| **Cornell University**, B.A. Mathematics, B.A. Computer Science *cum laude* | Aug '22 – May '25 |

- **GPA:** **3.72**/4.0
- **Coursework:** Lattices, Cryptography, AI, Randomized Algorithms, Linear Algebra, Analysis.
- **Programming:** Python, Java, OCaml, C, Ruby (on Rails), GitHub, Unix, LaTeX

## Experience

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| **Head TA, CS 2800: Discrete Math**, Cornell University | Sp '23, '24, '25, Fall '23, '25 |

- Creates rubrics for homework, exams and leads team of 10 TAs through grading.
- Teaches weekly discussion section ($\sim 25$ students), hold weekly office hours.
- Leads review lectures ($\sim 300$ students), creates supplemental materials [Link].

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| **TA, CS 4820: Algorithms**, Cornell University | Fall '24 |

- Held weekly office hours, graded homework and exams, created and presented weekly recitation lectures.

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| **Backend Software Engineer**, SC Johnson School of Business IT, Cornell University | May – Aug '23 |

- Spearheaded the modernization of legacy PHP code by re-implementing in Ruby on Rails, JavaScript, HTML.
- Identified and resolved intricate bugs across multiple programs, presented weekly deliverables.

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| **Finance Fellow**, Imani Oakley for Congress | Aug – Nov '21 |

- Assisted with operation of operations of campaign finances, including a six-figure budget.
- Managed database of high-profile correspondents using data-based management softwares (e.g. ActBlue)

## Research

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| **EssentCell: Discovering Essential Evolutionary Relations in Noisy Single-Cell Data** [PDF] | Submitted 5/25 |

*Advisors: Adiesha Liyanage, Brendan Mumey (Montana State University REU)*
Designed LP algorithm to determine most plausible cellular relationships given noisy data.

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| **Approximating the Longest $k$-Repeated Subsequence** | Ongoing |

Created approximation algorithm for
*Advisors: Matthew Eichhorn, Anke van Zuylen (Cornell University),*

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| **Allocation of Scientific Credit with Altruistic Players** [PDF] | Dec 2024 |

*CS 6840 Graduate Algorithmic Game Theory, Professor Eva Tardos*

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| **Optimizing PrivGraph: The Impact of Community Initialization and Privacy Budget Allocation Strategies on Differential Privacy** [PDF] | Dec 2023 |

*CS 6850 Graduate Information Networks, Professor Jon Kleinberg*

## Leadership and Service

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| **President, Association of Computer Science Undergraduates** | Dec '23 - Dec '24 |

- Oversaw all functions of the largest CS club at Cornell ($\sim 500$ active members) [Link]

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| **President, Triphammer Cooperative** | Dec '23 - Dec '24 |

- Managed daily and administrative logistics of 20-person, student-governed residence

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| **Instructor, Cornell Outdoor Education** | Dec '23 - Present |

- Teaches courses at Cornell in rock climbing, backpacking, and caving ($\sim 16$ students).

## Awards

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| **Jonathan E. Marx Memorial Senior Prize** | May '25 |

- One of two students recognized at graduation for outstanding contributions in leadership.

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| **Sphinx Head Honors Society** | Aug '24 |

- One of forty seniors invited to Cornell's oldest senior honors society.

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| **Most Impactful Student Award** *Cornell CIS DEIB Office* | April '24 |

- Peer nominated award recognizing a student committed to creating a more inclusive culture in Cornell and beyond.

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| **TA Excellence Award** | April '24 |

- Awarded by professor of CS 2800 for my role as head TA.