Rachel Lin

raalin25@amherst.edu | (802)-324-8226 | [Github](#) | [LinkedIn](#)

EDUCATION

Amherst College | Amherst, MA   **Expected May 2025**
- Bachelor of Arts: Computer Science
- GPA: 3.67/4
- Relevant Coursework: Intro Computing and the Arts, Intro to Computer Science I, Intro to Computer Science II, Intro to Statistics via Modeling, Linear Algebra via Applications, Data Structures, Algorithms, Artificial Intelligence, Data Science, Machine Learning, Data Mining

EXPERIENCE

Gregory Call Academic Intern | Amherst, MA   **September 2023 - December 2023**
- Simulate pass-and-swap queues using python and mathematically analyze queuing policies to better predict system performance by 12%, working under the guidance of Professor Gardner

COSC-112 Teaching Assistant | Amherst, MA   **September 2023 - December 2023**
- Manage afternoon labs and hold evening TA sessions weekly for ~40 total students in Intro to Computer Science II to provide assistance with assignments, projects, and key concepts. Held and managed 12+ TA labs and sessions for a total of over 40 hours.

Summer Undergraduate Research Fellowship | Amherst, MA   **June 2023 - August 2023**
- Conduct research on Queuing theory models and redesign heterogeneous systems to reduce waiting times in real-world applications.
- Simulated a Jackson network of Starbucks customer queues (M/M/k) using Python, analyzing customer behavior (joining vs. balking) in a partially observable system and improving queue throughput by 20%.

ETTA International (*Non-Profit Intern*) **|** Amherst, MA   **March 2023 - September 2023**
- Improve design of ETTA website via SquareSpace and manage event programming by creating posters for upcoming events and collaborating with other organizations to promote inclusion within the arts.

User-generated Content (UGC) Creator |Remote | **July 2024 - Present**
- Script, edit, and film content for 10+ brands to promote their products and/or services through direct-response marketing, with videos including product testimonials, demos, reviews, and more.
- Gained over a combined 1.8 million views on organic videos of UGC content on Tiktok

PROJECTS

Sorting Algorithm Visualizer | React, JS, HTML/CSS | [Github Pages](#)   **July 2024**
- Built an interactive tool in React to visualize sorting algorithms (e.g., Merge Sort, Quick Sort) with real-time CSS animations and DOM manipulation. Enabled user controls for sorting speed, step-by-step execution, and algorithm selection. Display educational sidebar which includes time complexity analysis and pseudocode.

Being Human in STEM Database Project | *PostgreSQL,Django, React.js, Node.js*   **September 2023**
- Created database management system for HSTEM student-led initiative on campus from prior data stored in Google Drive folders; web architecture developed via REST API with Django REST framework to manage backend

MammothEdu | *JS, HTML, TailwindCSS* | ***HackMIT 2023***   **September 2023**
- Developed a full-stack web application using OpenAI API to generate explanations or lecture notes of given topics filtered by grade level, word count, subject, and difficulty. Acquired ~10 users on campus

ACTIVITIES

The Remedy Project | Remote   **January 2023 - February 2024**
Lead Data/IT Team Member (Volunteer)
- Manage the back-end of the action page website via NationBuilder and create blog post content to be displayed on site. Organize the flow of volunteers and donors advocating for the rights of the incarcerated.
- Collaborate with co-founders to alter current layout and design of the website via custom Jinja templating

Food Justice Alliance | Amherst, MA   **February 2022 - Present**
Organization Member (Feb 2022) → Leader (May 2022)
- Organize FJA events and weekly general meetings for over 50 student members.
- Hosted event fundraisers to drive $1000+ in donations for a local agriculture organization and outreached campus programs/clubs for 15+ collaborations
- Arranged and lead the Food Recovery program that hosts volunteer sessions of ~50-200 lbs of leftover food on campus to be packaged (3x a week) and sent to local food bank weekly

SKILLS & INTERESTS

LANGUAGES (**Technical**): Python, Svelte, Java, HTML/CSS, React, JS
SKILLS & TOOLS: Github, Git, Word, RStudio, Quarto