

# Melinda Chang

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## RESEARCH INTERESTS

- Natural language processing (NLP), computer vision, cultural analytics
- Programming languages, software engineering
- Literary theory, aesthetics, critical and cultural studies

## Education

2024--Present

**B.A., Computer Science & Comparative Literary Studies**  
*Northwestern University*, Evanston, IL  
GPA: 3.73, Dean's List (1 quarter)

## Selected Experience

2025--Present

UNIVERSITY OF CALIFORNIA, BERKELEY  
*Undergraduate Researcher*, School of Information  
Advisor: Prof. Timothy Tangherlini. Apprehending narrative in the Icelandic saga with literary-theoretical and computational methods.  
Berkeley, CA

2023--2024

UNIVERSITY OF CALIFORNIA, SAN DIEGO  
*Student Researcher*, Programming Systems Group  
Advisor: Prof. Michael Coblenz. Toward ergonomic programming languages and software processes for computational climate scientists.  
La Jolla, CA

2022

UNIVERSITY OF CALIFORNIA, SAN DIEGO  
*Research Assistant*, Laboratory for Computational Astrophysics  
Advisor: Prof. Michael Norman. Systems programming to support analysis of dark matter ha-

los in early universe simulations.  
La Jolla, CA

2022 HACK CLUB  
*Software Engineer Intern*  
Building web tooling for JavaScript-based game engine.  
Shelburne, VT (Remote)

## Publications

2024 Elizaveta Pertseva, *Melinda Chang*, Ulia Zaman, Michael Coblenz. [A Theory of Scientific Programming Efficacy](#). ICSE 2024 [International Conference on Software Engineering].

## Awards & Grants

2024 National Merit Finalist.

2023 4th Place in Computational Systems & Analysis, *California Science & Engineering Fair*.

2023 1st Award in Computer Science & Systems Software, *Greater San Diego Science & Engineering Fair*.

## Service

2025--Present *Staff Writer*, Responsible AI Student Organization (RAISO)  
On current events in artificial intelligence ethics, tech policy, and computing culture.

2025--Present *Founder & Editor-in-Chief*, Critical Culture Undergraduate Journal  
Northwestern's premier undergraduate venue for critical writing.

2024--Present *Director of Technology*, WildHacks  
Leading software development at the largest collegiate hackathon in Chicagoland.

2021--2024 *Outreach Volunteer*, San Diego Astronomy Association

2023 *Founder & Director*, Hack the Wave  
Organized San Diego County's biggest-ever high school hackathon.

## Selected Projects

2022--2023

*Albio*. Lightweight JavaScript compiler to enable reactive web programming directly in mark-down. Outperforms Virtual DOM-based frameworks like React, Vue in key benchmarks.

## Selected Skills

TypeScript, React, Svelte, SASS, Tailwind · Rust, Axum · C/C++ · Python · Java · Haskell · UNIX, Shell, Git.

## Relevant Coursework

Data Structures & Algorithms · Intro to Literary Theory · C/C++ Programming · Intro to Functional Programming · Intro to Computer Systems · Intro to AI · Multivariable Calculus · Linear Algebra.