

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 halos 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, <i>California Science & Engineering Fair</i> .
2023	1st Award in Computer Science & Systems Software, <i>Greater San Diego Science & Engineering Fair</i> .

Service

2025–Present	<i>Staff Writer</i> , Responsible AI Student Organization (RAISO) On current events in artificial intelligence ethics, tech policy, and computing culture.
2025–Present	<i>Founder & Editor-in-Chief</i> , Critical Culture Undergraduate Journal Northwestern’s premier undergraduate venue for critical writing.
2024–Present	<i>Director of Technology</i> , WildHacks Leading software development at the largest collegiate hackathon in Chicagoland.
2021–2024	<i>Outreach Volunteer</i> , San Diego Astronomy Association
2023	<i>Founder & Director</i> , Hack the Wave Organized San Diego County’s biggest-ever high school hackathon.

Selected Projects

2022–2023	<i>Albio</i> . Lightweight JavaScript compiler to enable reactive web programming directly in mark-down. Outperforms Virtual DOM-based frameworks like React, Vite in key benchmarks.
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Selected Skills

TypeScript, React, Vue, 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.