

Melinda Chang

+1 (858) 342 8852
melinda@u.northwestern.edu

melindachang.com
codeberg.org/melindachang
linkedin.com/in/melindahchang

RESEARCH INTERESTS

- Security methods for artificial intelligence ethics
- Programming languages, compilers, type systems
- Literary theory, critical and cultural studies

Education

2024– **B.A., Computer Science & Comparative Literary Studies**
Northwestern University, Evanston, IL
GPA: 3.79, Dean's List (2 quarters)

Selected Experience

2025– **NORTHWESTERN UNIVERSITY**
Undergraduate Researcher, Computational Journalism Lab
Advisor: Dr. Nick Hagar (lab of Prof. Nicholas Diakoupolous). Technical interventions for data-secure SLMs in investigative document search.
Evanston, IL

2025– **UNIVERSITY OF CALIFORNIA, BERKELEY**
Undergraduate Researcher, School of Information
Advisor: Prof. Timothy Tangherlini. Exploring the affordances of language models in parsing and structuring textual data, esp. literary narratives with high social complexity.
Berkeley, CA (Remote)

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. Second author of paper in ICSE '24 (22% acceptance).
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
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*.

Teaching Experience

Fall 2025 *Undergraduate Teaching Assistant*, COMP_SCI 396 Intro to Web Development
Northwestern University · Evanston, IL

Service

2025– *Reporter*, Daily Northwestern
Critical coverage of visual art, literature, music for Arts & Entertainment desk.
Northwestern University · Evanston, IL

2025– *Staff Writer*, Responsible AI Student Organization (RAISO)
On current events in artificial intelligence ethics, tech policy, and computing culture.
Northwestern University · Evanston, IL

2024– *Director of Technology*, WildHacks
Leading software development at the largest intercollegiate hackathon in the Chicagoland area.
Northwestern University · Evanston, IL

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

2023 *Founder & Director*, Hack the Wave
Organized biggest high schooler-run hackathon in San Diego County history.

Selected Projects

2022–2023

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

Selected Skills

TypeScript, React, Svelte · Rust · Common Lisp, Scheme · C, C++ · Python · Java · Linux, Bash, Git.

Relevant Coursework

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