Melinda Chang

+1 (858) 342 8852

melinda@u.northwestern.edu

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

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-the-oretical 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

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

Awards & Grants

National Merit Finalist.

2024

2023

2023

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

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

Founder & Director, Hack the Wave

Organized San Diego County's biggest-ever high school hackathon.

Selected Projects

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, SASS, Tailwind \cdot Rust, Axum \cdot C/C++ \cdot Python \cdot Java \cdot Haskell \cdot UNIX, Shell, Git.

Relevant Coursework

 $\label{eq:conditional} Data \ Structures \ \& \ Algorithms \cdot Intro \ to \ Literary \ Theory \cdot C/C++ \ Programming \cdot Intro \ to \ Functional \ Programming \cdot Intro \ to \ Computer \ Systems \cdot Intro \ to \ AI \cdot Multivariable \ Calculus \cdot Linear \ Algebra.$