

# Kai Weiner

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## EDUCATION

**Carleton College**, B.A., Computer Science, Minor in Mathematics, GPA: 3.83/4.00

Northfield, MN | **June 2025**

## RESEARCH EXPERIENCE

**Alphasenario**, Student extern

Northfield, MN | **Fall 2024 - Fall 2024**

- Brainstormed and implemented a functional recommendation algorithm for interactive, scenario-based learning platform using MERN stack framework.

**Carleton College CS Department**, Student Researcher

Northfield, MN | **Fall 2024 - Spring 2025**

- Writing unit tests, collecting data, and coding in C++ to aid in development of Symbulation (agent based model of cellular symbiosis evolution).

**COSIBS**, Biostatistics Intern

Denver, CO | **Summer 2024**

- Learned about the field of biostatistics and developed statistical abilities to apply towards research project.
- Developed interactive web app in R to facilitate prediction modeling of kidney respiration.

**Altschuler/Wu Lab (UCSF)** Student Intern

San Francisco, CA | **Summer 2023**

- Wrote code in python to visualize and parse complex data about cellular gene expression under different conditions of hypoxia.
- Created interactive web app with informative graphs so that other researchers could interact with data to verify the findings of its companion paper and test other hypotheses. Presented software to lab.

**Marshall Lab (UCSF)** Student Intern

San Francisco, CA | **Summer 2022**

- Wrote code in python to model growth dynamics of cellular flagella.
- Combined separate models of flagella growth (in Matlab and python), one detailing building components and another detailing molecular motors.

**Dumont Lab (UCSF)** Student Intern

San Francisco, CA | **Summer 2020**

- Wrote automated image analysis code in python to extract shapes of K-fibers (cell division machinery component) from microscopy images.
- Used extracted K-fiber shapes to test accuracy of multiple K-fiber mathematical models and identify dominant forces that shape K-fibers. Presented findings to lab.

## WORK EXPERIENCE

**Carleton Computer Science Department**, Prefect

Northfield, MN | **Spring 2025**

- Will assist with in-class sessions and host external homework review sessions for the Artificial Life and Digital Evolution elective at Carleton.

**Carleton Computer Science Department**, Student Grader

Northfield, MN | **Spring 2023**

- Graded student problem sets for Carleton Computer Science major requirement course Math of CS.

**Carleton Computer Science Department**, General Assistant

Northfield, MN | **Winter 2023**

- Assisted students in completing their computer science homework and with general computer science questions.

**MV Gate**, Group Instructor

Marin, CA | **Summer 2021**

- Tutored campers grades 6-12 basic python skills by coaching them through coding activities and helping them work through questions.

## COMMUNITY ENGAGEMENT AND LEADERSHIP EXPERIENCE

**Off the Cuff (Carleton College Club)**, President

Northfield, MN | **Fall 2023 - Spring 2025**

- Facilitate meetings, coordinate events, and give feedback to help students create seven minute autobiographical stories based around a theme (based off of The Moth radio show).

**Red Doors**, Bassist/Lead Singer

Albany, CA | **Fall 2017 - Summer 2023**

- Played bass and sang in independently formed and managed band, performing set lists of up to 2 hours at events including the largest street fair in the Bay Area.

## SKILLS AND INTERESTS

**Technical Skills:** AWS, C, C++, CSS, Github, HTML, Java, Javascript (Node.js, React.js), Kali, Latex, Matlab, Metasploit, Microsoft Office, MongoDB, Python (Flask, Numpy, Pandas, SciKit), R, Scheme, SQL.

**Academic Interests:** Software Engineering, Data Analysis, Computational Biology, Biostatistics.

**Interests:** Backpacking and hiking, Playing and composing music, Puzzle games.