

# Kyla Levin

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## EDUCATION

### M.S. / Ph.D. Computer Science, Advisor: Emery Berger

Expected Graduation: May 2028

University of Massachusetts Amherst, Amherst, MA

GPA: 3.82

Relevant Coursework: Neural Networks

### B.S. Computer Science and Chemical Engineering

2019 – 2023

Tufts University, Medford, MA

GPA: 3.67

## WORK EXPERIENCE

### Teaching Assistant – Introduction to Computation

Sep. 2023 – Present

University of Massachusetts Amherst, Manning College of Information and Computer Sciences

- Guiding students through peer-to-peer learning by leading discussions and responding to student questions and concerns both in office hours and online through Piazza.

### Littauer Library Student Assistant Programmer

May 2023 – Aug. 2023

Harvard University Wiedner Library, Judaica Division

- Performed tech stack development on the Judaica Division's digital collection of 8M+ records in FileMaker.
- Designed interfaces for more accessible database navigation across programming backgrounds and languages.
- Wrote compilation programs to better visualize collection statistics and print analysis results into reports.
- Improved data sanitization standards for record population using SQL in Alma Oracle Analytics.

### Teaching Assistant – Cryptography and Discrete Mathematics

Aug. 2020 – May 2023

Tufts University Computer Science Dept.

- Wrote administrative programs in C++ to help lecturing faculty with organizing grades and student data.
- Graded and reviewed feedback on all student homework assignments and exams for classes of 160+.
- Answered student inquiries and provided a collaborative learning environment through office hours.

## RESEARCH

### PLASMA Lab with Emery Berger

Sep 2023 – Present

University of Massachusetts Amherst

- Modifying C/C++ debugging tools, *ChatDBG* and *CWhy*, to recursively dereference pointers through nested structs for clearer local variable listing, as well as expand accessibility to Windows through WinDBG.

### The Foster Lab with Jeffrey Foster

May 2022 – May 2023

Tufts University Computer Science Dept.

- Developed a formalism for a path-sensitive programming language to improve the type-inferencing capabilities of REST API responses.
- Analyzed the quality and accuracy of REST API specs created with *rdl*, a custom type-inferencing tool, against publicly used documentation software such as SwaggerHub and Postman.
- Wrote a sample REST API using Ruby on Rails and document its API spec both manually and through an automatic OpenAPI generation software.

### The Cowen Lab with Lenore Cowen

June 2021 – Sep. 2021

Tufts University Computer Science Dept.

- Assisted on a graduate project on using protein networks to locate causal genes for Parkinson's Disease and programmed modules that could execute an efficient graph-searching algorithm to traverse protein nodes. Published "Neighborhood embedding and re-ranking of disease genes with ADAGIO" with Mert Erden and Lenore Cowen and presented at ACM-BCB 2022. <https://doi.org/10.1145/3535508.3545542>
- Discussed research and career paths with computational biology experts to introduce undergraduate students to the field and encourage their outreach for possible research opportunities.

## SKILLS AND INTERESTS

**Programming Languages:** C++, C, Java, Python, HTML, JavaScript, Ruby

**Software programs:** Unity, Eclipse, Adobe, GitHub, LaTeX, Office 365 products

**Interests:** Bartending, studio art, creative writing, chess, ballroom dancing