

Kyla Levin

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EDUCATION

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

Expected: May 2028

University of Massachusetts Amherst, Amherst, MA

GPA: 3.96

Relevant Coursework: Computer Architecture, Information Assurance, Compilers, Secure Distributed Systems, Adv. Algorithms, Neural Networks

B.S. Computer Science and Chemical Engineering

May 2023

Tufts University, Medford, MA

GPA: 3.67

SKILLS

Programming Languages: C++, C, Java, Python, HTML5, JavaScript, Ruby

Software programs: OpenAI, Bedrock, GDB, LLDB, PDB, Docker, Eclipse, Adobe, Git, Linux OS, LaTeX

RESEARCH

Graduate Research Assistant

Sep 2023 – Present

PLASMA Lab, University of Massachusetts Amherst

- *ChatDBG*: Developing a new debugging tool to converse with large language models, such as ChatGPT, to reduce user involvement and make conventional debuggers more accessible to software developers. ChatDBG enables LLMs to autonomously answer complex user queries about program behavior. Published “ChatDBG: Augmenting Debugging with Large Language Models” and presented at FSE 2025: <https://dl.acm.org/doi/10.1145/3729355>.
- *Pythoness*: A tool that uses LLMs to automatically generate rigorous and efficient code through natural-language descriptions and tests. Currently expanding an automatic testing framework that creates and runs unit tests, property-based tests, class constraints, and integration tests on generated code.

Undergraduate Research Assistant

May 2022 – May 2023

The Foster Lab, Tufts University, Computer Science Dept.

- Developed REST_π , a novel path-sensitive type inference system that elevates REST API documentation generation by accurately capturing the relationship between API input and application and its output. To be presented at SPLASH 2025.
- Analyzed the quality of REST API specs created with REST_π implemented for Ruby built on *RDL*, an existing type-inferencing tool, against publicly used documentation software such as SwaggerHub and Postman.
- Wrote a sample REST API using Ruby on Rails and documented its API spec both manually and through an automatic OpenAPI generation software.

Laidlaw Scholar Undergraduate Research Assistant

Jun 2021 – Sep 2021

The Cowen Lab, 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.

WORK EXPERIENCE

Automated Reasoning Research Intern

May – August 2025

Amazon Web Services

- Completed a research internship at AWS with the Automated Reasoning team under manager Mike Hicks.

Littauer Library Student Assistant Programmer

May 2023 – Aug 2023

Harvard University Widener Library, Judaica Division

- Performed tech stack development on the Judaica Division's digital collection of 8M+ records in FileMaker.
- *Front end:* Designed new web interfaces and organized a database architecture that optimized the accessibility of database navigation for people across various programming backgrounds and languages.
- *Back end:* Wrote compilation programs to better visualize collection statistics, analyze the data, and print the results into comprehensive reports.

Intelligence Team Intern

Jul 2022 – Sep 2022

Tortoise Media

- Refined a natural-language processing algorithm to scrape public financial data from government websites and process the data into a machine learning model that could detect unusual trends in donors or amounts being spent.
- Wrote a clustering algorithm to group together donor and MP names with similar names and titles.
- Organized the company's subscriber lists and access codes in Excel in collaboration with the Partnerships team.

ACADEMIC EXPERIENCE

Teaching Assistant – Introduction to Computation

Sep 2023 – Dec 2023

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

- Guided students through peer-to-peer learning by leading weekly discussions and lab sessions, as well as responding to student questions and concerns both in office hours and online through Piazza and on Zoom.
- Evaluated and graded assignments, projects, and exams using established rubrics, providing detailed and constructive feedback to help students improve their understanding of machines and computation.

Academic Tutor

May 2022 – May 2023

Varsity Tutors

- Provided hourly coaching in a wide variety of computer science, chemistry, math, and general education subjects.
- Created my own materials to help students from middle school to adult learners develop new programming skills with no prior experience, **improve standardized test grades, or study materials for a class.**

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.