

# Helena Williams

<https://helenawilliams.github.io>

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Chicago, IL

## SKILLS

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• **Languages:** Python, HTML, CSS, JavaScript, C, Java    **Technologies:** SQL, Flask, Google Suite, Qualtrics

## EXPERIENCE

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- **iD Tech** Chicago, IL  
*Virtual Instructor* June 2024 - Present
  - **Online Private Lessons:** Tutoring students age 7-19 of all skill levels in solo lessons, guiding project creation. Over 100 lessons taught. Sample demo projects can be viewed on my website.
  - **Virtual Tech Camps/Online Teen Academies:** Teaching groups of 2-12 students and providing certifications.
  - **Subjects Taught:** Python, Java, JavaScript, HTML/CSS, Cybersecurity, Scratch, Roblox Studio/Lua, Math.
- **SUPERgroup** Chicago, IL  
*Research Assistant* April 2023 - Present
  - **Password Research:** Reading and analyzing key papers in the field to help develop a research approach to be used in a PhD student's study. Performing high-level semantic analysis of passwords in order to determine strength levels of various password-generation techniques. Will be credited as co-author.
  - **Codex Research:** Reading and analyzing participant responses to draw conclusions for a dissertation defense study. Developing experimental procedures for use with human subjects, from question fine-tuning to response processing. Attained IRB certification to work with human subjects. Will be credited as co-author.
- **NOAA, Polar Ecosystem Program** Seattle, WA  
*Machine Learning Intern* June 2022 - Aug. 2022
  - **Machine Learning Research:** Investigated proprietary VIAME software, Darknet, and YOLOv7. Led machine learning implementation efforts, educated key stakeholders in the education and design of popular algorithms, and developed plans for deployment on live dataset.
  - **Database Management:** Wrote Python tools to clean up and sort 9,000+ annotation dataset. Wrote extensive documentation regarding Bering-Okhotsk Seal Survey database.
- **csDojo Tutoring** New York City, NY  
*Senpai tutoring underclassmen* Spring 2020 - June 2021
  - **Teaching:** Aided sophomores and juniors in Introduction to Computer Science and AP Computer Science with difficult projects in NetLogo and Java. Caught up sick students on material they had missed. Helped teachers get struggling students back on track.
- **Computer Science Teaching Assistant** New York City, NY  
*Teaching assistant for two semesters* Spring 2020, Spring 2021
  - **Education:** Provided assistance for students in Introduction to Computer Science courses. Maintained active presence on student platforms and helped students learn challenging NetLogo subjects. Helped student who had missed 30 homework assignments to pass course in last two weeks.

## EDUCATION

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- **University of Chicago** Chicago, Illinois  
*Computer Science and French double major* Sep. 2021 - Present
  - **Computer Science Studies:** Completed CMSC 16100, 16200, 15400, 23200, 23210, 23500, 23700, 25910, 27100, and 27200. Dean's List recipient in 3rd year.
  - **Sample Programming Projects:** Developed and administered pilot study on student interactions with dark patterns. Used BERT through HuggingFace API to examine idiosyncratic speech. Practiced password-cracking on Linux shadow files with Hashcat. Utilized Wireshark to intercept and interpret packet contents. Created LRU cache simulator in C to mimic Valgrind cache traces.
  - **University Work:** Served as Summer Housing Assistant. Performed administrative and maintenance duties. Previous experience as Resident Dean Assistant, Orientation Aide, House Representative, and Wellness Czar.
- **Stuyvesant High School** New York City, New York  
*Honor society student* Sep. 2017 - June 2021

Took AP Computer Science (5), AP Calculus BC (5), Software Development, and AI.