# Catherine Bregou

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# **Work History**

#### Microsoft

#### **Software Engineering Intern**

Jun 2023 - Aug 2023

- Sidecar is a component of the Intune mobile device management platform within Microsoft's Office suite, serving as a background agent to facilitate various management tasks on devices.
- Problem: Customers were using disruptive workarounds, such as killing Sidecar, to perform on-demand check-ins, causing incomplete transactions and inconsistent syncs.
- My intern project: Developed the Sidecar CLI to provide finer control for IT admins, enabling immediate partial syncs, access to logs, and uninstall commands, improving reliability, security, and user interactivity without interrupting the Sidecar agent.

## **Carleton Computer Science Department**

#### **Teaching Assistant and Grader**

Sept 2022 - present

 Facilitated group study sessions and provided individual assistance, enhancing student learning by reviewing and extending coursework.

## **Primary Researcher**

Jan 2022 - Jun 2023

- Conducted research on computational ranking of judgment models under the guidance of research advisor David Liben-Nowell.
- Extended abstract accepted to AAMAS '24 and can be viewed: https://arxiv.org/abs/2401.11016

#### L-eaf Labs

#### **Software Engineering Intern**

Jun 2023 - Sep 2023

- Gained valuable real-world software development experience through close client collaboration, thoughtfully refined deliverables to exceed customer's expectations, and effectively engaged in team-based collaboration to resolve challenges.
- Streamlined project management and delivery by utilizing Agile methodologies, flow metrics, and Kanban boards.

#### **METCO**

#### **Technology Enrichment Specialist**

Jun 2023 - Aug 2023

- METCO aims to promote racial and cultural integration within public schools in the Boston metropolitan area, enhancing educational opportunities and fostering inclusivity.
- Developed lessons plans to introduce the fundamentals of coding such as inputs, outputs, variables, loops, conditional statements, and algorithms to kids of all ages.

## **Dartmouth Hitchcock Medical Center**

#### **Assistant Researcher**

Jun 2022 - Sep 2022

- Studied nano particles in a magnetic field to monitor the removal of the thrombus used to treat stroke patients.
- Programed a BioAssembly Bot to 3D print a porous material to substitute brain material in primary research stages.



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### Education

Carleton College | Bachelors of Arts | Class of 2025 Majoring in Computer Science, GPA: 3.8

Hanover High School | HS Diploma | Class of 2021

# **Programming Skills**

- Languages: Proficient in Python, Java, HTML,
   CSS, JavaScript, SQL, C++, C, Swift, and
   Assembly language.
- Coursework: Object-oriented programming, data structures, discrete mathematics for computer science, artificial life, digital evolution, advanced software design, algorithms, and computer systems.
- Project Management: Experienced with Agile methodologies, Toyota practices, flow metrics, Kanban boards, Azure DevOps, and Asana to track progress and streamline project workflows.
- Front-end Frameworks: Familiar with frameworks like React and Angular to build dynamic user interfaces.
- Back-end Development: Skilled in Flask for creating robust back-end solutions, as well as Docker for containerizing applications and managing deployment environments.
- Database Management: Experienced in handling data using PostgreSQL for efficient storage and retrieval.
- Testing Proficiency: Skilled in unit, integration, and automated testing.