

CAROLINE BERGER

Aarhus, Denmark

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EDUCATION

PhD in Computer Science

Aarhus University, Denmark, expected November 2026

MSc in Human-Computer Interaction

University of Maryland, USA, 2023

BSc in Computer Science

McGill University, Canada, 2019

SELECTED PEER REVIEWED PUBLICATIONS AND OTHER SCHOLARLY WORKS

- [Caroline Berger](#). (2025) Making Science Interactive: Enhancing Synthesis and Collaboration. *Doctoral Consortium at the sixth decennial Aarhus conference: Computing X Crisis* <https://hal.science/hal-05191031v1> [Doctoral Consortium]
- [Caroline Berger](#), Matthew Lutze, Niklas Elmqvist, Magnus Madsen, and Clemens Nylandsted Klokmoose. (2024) Scientists and Code: Programming as a Tool. *PLATEAU: 14th Annual Workshop at the Intersection of PL and HCI* <https://doi.org/10.1184/R1/25587726.v1> [Workshop article]
- Kevin Tran-Nguyen, [Caroline Berger](#), Roxanne Bennet, Michelle Wall, Suzanne Morin, and Fateme Rajabiyzadi. (2022) Mobile App Prototype in Older Adults for Postfracture Acute Pain Management: User-Centered Design Approach. *Journal of Medical Internet Research Aging* 5(4), e37772. <https://doi.org/10.2196/37772>. [Journal article]
- Josh Pollock, Ian Arawjo, [Caroline Berger](#), and Arvind Satyanarayan. (2024) Designing for Semi-Formal Programming with Foundation Models. *PLATEAU: 14th Annual Workshop at the Intersection of PL and HCI* <https://vis.csail.mit.edu/pubs/semi-formal-design-space.pdf> [Workshop article]
- [Caroline Berger](#), and Martin P. Robillard (2017) “Novice Helper: Eclipse Integrated Development Environment to support novice programmers”, Montreal Symposium on Software Engineering Research <https://carolineberger.github.io/NoviceHelperPoster.pdf> [Poster].

GRANTS AND AWARDS

- Fellowship at Massachusetts Institute of Technology (MIT), Danish Agency for Higher Education and Science \$10,000 USD (2025)
- Mobility Grant, Aarhus University \$3,000 USD (2025)
- Science Undergraduate Research Award, McGill University \$5,000 USD (2017)
- Alumni scholarship award, University of Maryland \$5,000 USD (2022)
- Study abroad scholarship award, University of Maryland \$1,500 USD (2021)

INVITED TALKS

- Making Science Interactive: Enhancing Synthesis and Collaboration, Brown Bag Lunch Speaker Series, Human-Computer Interaction Lab, October 2025
- “I Feel Like I’m Teaching in a Gladiator Ring”: Barriers and Benefits of Live Coding, Aarhus University Center for Computational Thinking and Design, September 2023
- Novice Helper: Eclipse Integrated Development Environment Plugin to Support Novice Programmers, McGill University School of Computer Science Lightning Talks, 2017

RESEARCH POSITIONS

PhD Fellow

08/2023 – present

Aarhus University, Department of Computer Science

Aarhus, Denmark

- Investigating the role of computer programming in scientific discovery through contextual inquiry, participatory design workshops, and prototyping.
- Presenting results at conferences and workshops.

Visiting PhD Researcher

01/2025 – 06/2025

MIT, Computer Science & Artificial Intelligence Laboratory

Cambridge, USA

- Furthered my PhD research under the supervision of Arvind Satyanarayan in the MIT Visualization Group.
- Worked with marine biologists at Woods Hole Oceanographic Institution to enhance tools that help scientists create interactive visualizations.

Research Assistant

09/2020 – 04/2021

McGill University Health Centre Research Institute

Montreal, Canada

- Engaged community pharmacists and other medical stakeholders in design of low- and medium-fidelity prototypes.
- Facilitated participatory design sessions with older adults that had sustained a fracture.
- Co-authored journal article.

Research Assistant

05/2020 – 08/2020

Tech3Lab, HEC

Montreal, Canada

- Laid foundation for study design through literature review of recommendation systems.
- Developed automated cleaning and processing script for experimental test data.
- Conducted usability testing with biometric sensors (electrodermal dermal activity and heart rate).

Research Assistant

05/2017 – 08/2017

Software Evolution Research Group, McGill University

Montreal, Canada

- Explored programming behaviors of children in textual programming environments through Eclipse plugin development, usability testing, and presenting findings in academic forums.

TEACHING EXPERIENCE

Teaching Assistant

08/2023 – present

Aarhus University, Department of Computer Science

Aarhus, Denmark

- Facilitating weekly three hour lessons in human-computer interaction and web development for a class of twenty to thirty students.
- Mentoring students in collaborating with industry partners.
- Grading student assignments in design, theory, and programming.

Teaching Assistant

01/2025 – 06/2025

MIT, Brave Behind Bars

Cambridge, USA

- Taught general programming, web development, and fundamentals of UX.
- Provided programming assistance and facilitated discussion and activities in groups.
- During classtime, assisted students who are incarcerated at Massachusetts Correctional Institution – Framingham, Southern Maine Re-entry Center, Bolduc Correctional Facility, and Maine Correctional Center with the Brave Behind Bars program.

Curriculum Developer

01/2019 – 06/2019

Digital Media Academy

Remote

- Designed and implemented curricula for front-end web development and mobile application development course.
- Adapted material for students aged 12-18.
- Developed curricula with practical, project-based skills in mind.

SERVICE

- Chair PhD Journal Club, Human-Centred Computing, Aarhus University, Fall 2025
- Student Volunteer, ACM Symposium on Computational Fabrication, Aarhus, 2025
- Reviewer for ACM CHI, 2025

LANGUAGES

English: Fluent C2

Italian: Professional C1

French: Conversational B2