AYAKA YORIHIRO

ayaka@cs.cornell.edu

EDUCATION

Cornell University   *September 2020 - Present*
Ph.D. in Computer Science.
M.S. in Computer Science.   *May 2024*
Advisor: Adrian Sampson.

Swarthmore College   *September 2016 - May 2020*
B.A., Computer Science and Music (double major).
Elected Phi Beta Kappa.
Advisor: Zachary Palmer.

HONORS AND AWARDS

NSF GRFP Honorable Mention   *2022*

Cornell University Outstanding Teaching Award   *2022*

Cornell University Fellowship   *2020*

Lockwood Fellowship, Swarthmore College   *2020*

PUBLICATIONS

A FIRRTL Backend for the Calyx High-Level Accelerator   *OSDA 2024*
Compilation Infrastructure.
Ayaka Yorihiro, Griffin Berlstein, Kevin Laeufer, and Adrian Sampson.
Workshop on Open-Source Design Automation (OSDA).

eMOP: A Maven Plugin for Evolution-Aware Runtime Verification   *RV 2023*
Ayaka Yorihiro, Pengyue Jiang, Valeria Marqués, Benjamin Carleton, and Owolabi Legunsen.
International Conference on Runtime Verification (RV).

A Set-Based Context Model for Program Analysis   *APLAS 2020*
Leandro Fachinetti, Zachary Palmer, Scott F. Smith, Ke Wu, **Ayaka Yorihiro**.
Asian Symposium on Programming Languages and Systems (APLAS).

PROFESSIONAL EXPERIENCE

Research Assistant   *Summer 2021, Jan - Aug 2022, Spring 2023, Sept 2024 - Present*
Cornell University, Ithaca, NY.

Research Assistant   *Jan - Dec 2019*
Swarthmore College, Swarthmore, PA.

C++ Engineering Intern   *Summer 2018*
Electronic Arts, Orlando, FL.

TEACHING EXPERIENCE

Instructor of Record for CS2110: *Summer 2024*
Object-Oriented Programming and Data Structures
Cornell University, Ithaca, NY.

Teaching Assistant for CS2110: *Fall 2023, Spring 2024*
Object-Oriented Programming and Data Structures
Cornell University, Ithaca, NY.

Teaching Assistant for CS5154: Software Testing *Fall 2021, Fall 2022*
Cornell University, Ithaca, NY.

Teaching Assistant for Programming Languages *Spring 2020*
Swarthmore College, Swarthmore, PA.

Teaching Assistant for Theory of Computation *Spring 2020*
Swarthmore College, Swarthmore, PA.

Student Mentor for Introduction to Computer Science *Fall 2018*
Swarthmore College, Swarthmore, PA.

PRESENTATIONS

Languages and Tools for Hardware Accelerator Design *November 2024*
Comp 321: Programming Languages Guest Lecture
Ithaca College, Ithaca, NY.

Languages and Tools for Hardware Accelerator Design *September 2024*
Swarthmore College, Swarthmore, PA.

Towards Better Specifications for Runtime Verification *Summer 2022*
Joint UT-Cornell Software Engineering Seminar

Towards Better Specifications for Runtime Verification *Fall 2021*
Programming Languages Discussion Group Retreat
Cornell University, Ithaca, NY.

SERVICE

Department of Computer Science, PL Website Czar *Spring 2025 - Present*
Cornell University, Ithaca, NY.

Department of Computer Science, Ph.D. Mentorship Czar *Spring 2022 - Present*
Cornell University, Ithaca, NY.

Co-organizer, Joint UT-Cornell Software Engineering Seminar *Summer 2022*

CS Ph.D. Student Visit Day Student Panelist *Spring 2022*
Cornell University, Ithaca, NY.

CS Ph.D. Student Visit Day Organizer *Spring 2021*
Cornell University, Ithaca, NY.

SKILLS AND INTERESTS

Programming Languages	Rust, Java, Python, Bash, OCaml, C/C++, LaTeX
Languages	English (Fluent), Japanese (Fluent)
Interests and Activities	Viola, Orchestra, Chamber Music, Special Needs