

AYAKA YORIIHIRO

ay436@cornell.edu

EDUCATION

Cornell University *September 2020 - Present*
Ph.D. in Computer Science.

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

eMOP: A Maven Plugin for Evolution-Aware Runtime Verification *RV 2023*
Ayaka Yorihiro, Pengyue Jiang, Valeria Marques, 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*
Cornell University, Ithaca, NY.

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

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

TEACHING EXPERIENCE

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

Guest Lecturer for CS6156: Runtime Verification *Spring 2023*
Applicating of Runtime Verification utilizing the Bitcoin blockchain.
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

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.

Automatic Repair of Regular Expressions (Pan, Hu, Xu, D’Antoni)

Spring 2021

Programming Languages Discussion Group

Cornell University, Ithaca, NY.

Quickly Detecting Relevant Program Invariants (Ernst, Czeisler, Griswold, Notkin) and Leveraging Test Generation and Specification Mining for Automated Bug Detection with False Positives (Pradel, Gross)

Spring 2021

Great Works in Programming Languages Seminar

Cornell University, Ithaca, NY.

Context-Sensitive Data-Dependence Analysis via Linear Conjunctive Language Reachability (Zhang, Su)

Fall 2020

Programming Languages Discussion Group

Cornell University, Ithaca, NY.

SERVICE

Co-organizer, Joint UT-Cornell Software Engineering Seminar

Summer 2022

Department of Computer Science, Ph.D. Mentorship Czar

Spring 2022 - Present

Cornell University, Ithaca, NY.

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.

CS Ph.D. 2020 Cohort Zoom Social Hour Organizer

Fall 2020 - Spring 2021

Cornell University, Ithaca, NY.

SKILLS AND INTERESTS

Programming Languages
Languages

Java, Python, OCaml, C/C++, Bash, L^AT_EX
English (Fluent), Japanese (Fluent)

Interests and Activities

Viola, Orchestra, Chamber Music, Special Needs