

Eric Hayden Campbell

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Education

Cornell University

Ph.D. in Programming Languages, Expected Dec 2024

M.Sc. in Computer Science, December 2020

Thesis Topic: Verified Configuration of Programmable Networks

2019 NSF GRFP Fellow

Pomona College

B.A.s in Computer Science & Mathematics, May 2017

Thesis: (In)finiteness and Linear Temporal Logic

Refereed Publications

- OOPSLA '24 **Computing Precise Control Interface Specifications**
Eric Hayden Campbell, Hossein Hojjat, Nate Foster
- NSDI '21 **Avenir: Managing Data Plane Heterogeneity via Control Plane Synthesis**
Eric Hayden Campbell, Bill Hallahan, Priya Srikumar, Carmelo Cascone, Jed Liu,
Vignesh Ramamurthy, Hossein Hojjat, Robert Soulé, Ruzica Piskac, and Nate Foster
- PLDI '22 **Kleene Algebra Modulo Theories**
Michael Greenberg, Ryan Beckett, and Eric Hayden Campbell
Distinguished Paper Award
- POPL '22 **Π4: Dependently-Typed Data Plane Programming**
Matthias Eichholz, Eric Hayden Campbell, Matthias Krebs, Nate Foster, Mira Mezini
- ECOOP '19 **How to Avoid Making a Billion-Dollar Mistake:
Type-Safe Data Plane Programming with SafeP4**
Matthias Eichholz, Eric Hayden Campbell, Nate Foster, Guido Salvaneschi, Mira Mezini
- CPP '23 **P4Cub: A Little Language for Big Routers**
Rudy Peterson, Eric Hayden Campbell, John Chen, Natalie Isak, Calvin Shyu,
Ryan Doenges, Parisa Ataei, and Nate Foster
- SCiL '21 **Epistemic Semantics in Guarded String Models**
Eric Hayden Campbell and Mats Rooth
- TMS '16 **Constructing Integer Matrices with Integer Eigenvalues**
Christopher Towse and Eric Hayden Campbell
The Mathematical Scientist, June 2016

Industry

Fujitsu Laboratories of America

Research Intern, Property Inference for Legacy Networks
Sunnyvale, CA. May 2018 - Aug 2018

Originate, Inc

Software Engineering Intern, Web Development
San Francisco, CA. May 2015 - Aug 2015

Gladly, Inc

Software Engineering Intern, Web Development
Palo Alto, CA. May 2014 - Aug 2014

Invited Talks

Avenir: Managing Data Plane Diversity with Control Plane Synthesis

- *VLCS Seminar.* EPFL. Oct 23
- *Tech Talk.* Intel. May 2022
- *Tech Talk.* Intel. March 2022
- *Computer Aided Verification.* P4 Verification Workshop. July 2021
- *Simons Institute.* Synthesis of Models and Systems. May 2021
- *Networked Systems Design & Implementation.* April 2021
- *Synthesis Discussion Group.* Yale University. September 2020
- *P4 Expert Roundtable Series: How is P4 Evolving as a language?* Virtual. April 2020

Epistemic Semantics in Guarded String Models

- *Scientific Computing in Linguistics.* February 2021

Outreach

4H Career Explorations Conference

Workshop Designer & Leader, *Networking and Security*, 2018-2022

Expand Your Horizons Conference

Workshop Leader, *Googling With Paper Airplanes*, 2017-2019

Originate, Inc

Counselor, *Approachable Web Design*, 2015

Teaching

Academy of Math and Programming, Jane Street Capital

Advanced Instructor, CS3, Summer 2023, *Bespoke course design*
Instructor, CS3, Summer 2022, *Bespoke course design*

Computer Science Department, Cornell University

TA, OOP and Data Structures, Spring 2018, *Teaching Excellence Award*
TA, OOP and Data Structures, Fall 2017

Computer Science Department, Pomona College

TA, Databases Systems, Spring 2017
TA, Programming Languages, Fall 2016
Head TA, Intro to CS, Spring 2016
TA, Intro to CS, Fall 2015

Guest Lectures

Responsible AI. Entrepreneurship: Growth Hacking. *Hult Business.* June 2023

SafeP4. Network Programming. *Cornell CS.* Oct 2019

Decidability of KAT. Intro To Kleene Algebra. *Cornell CS.* March 2019