Eric Hayden Campbell

Postctoral Research Fellow, UT Austin
Department of Computer Science
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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 BGP 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

Computing Precise Control Invariant Specifications
OOPSLA. Oct 24.

Avenir: Managing Data Plane Diversity with Control Plane Synthesis
VLCS Seminar. EPFL. Oct 23
Tech Talk. Intel. May 2022
Tech Talk. Intel. March 2022
P4 Verification Workshop. CAV. July 2021
Simons Institute. Synthesis of Models and Systems. May 2021
NSDI. 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
Society for Computation 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, Introduction to Computer Science, Spring 2016
TA, Introduction to to Computer Science, Fall 2015