Ethan Cecchetti

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Education

Cornell University, Ithaca, NY — 2015 – 2021
PhD, Computer Science
Dissertation: *Mechanisms for Provable Integrity Protection in Decentralized Systems*
Advised by Andrew C. Myers and Ari Juels

Cornell University, Ithaca, NY — 2019
Master of Science, Computer Science

Brown University, Providence, RI — 2008 – 2012
Bachelor of Science, Mathematics – Computer Science

Employment

Department of Computer Sciences, University of Wisconsin, Madison, WI — (Incoming, Fall 2023)
Assistant Professor

Maryland Cybersecurity Center, University of Maryland, College Park, MD — 2021 – Present
Post-Doctoral Associate

VMware, Palo Alto, CA — 2019
Research Intern

TripAdvisor, Needham, MA — 2012 – 2015
Software Engineer

Google, Cambridge, MA — 2011
Software Engineering Intern

Awards and Honors

Best Paper Award, 42nd IEEE Symposium on Security and Privacy — 2021

Best Paper Award Finalist, 24th ACM Conference on Computer and Communication Security — 2017

National Defense Science and Engineering Graduate (NDSEG) Fellowship — 2017

Outstanding Teaching Assistant, Cornell University, Department of Computer Science — Fall 2015

Senior Prize, Brown University, Department of Computer Science — 2012

Conference Papers

Semantics for Noninterference with Interaction Trees — In Submission
Lucas Silver, Paul He, **Ethan Cecchetti**, Andrew K. Hirsch, Steve Zdancewic

Compositional Security for Reentrant Applications IEEE S&P 2021
Ethan Cecchetti, Siqiu Yao, Haobin Ni, and Andrew C. Myers
🏆 ***Best Paper Award***
[ethan.umiacs.io/papers/serif.pdf]

Giving Semantics to Program-Counter Labels via Secure Effects POPL 2021
Andrew K. Hirsch and **Ethan Cecchetti**
[doi.org/10.1145/3434316]

First-Order Logic for Flow-Limited Authorization CSF 2020
Andrew K. Hirsch, Pedro H. Azevedo de Amorim, **Ethan Cecchetti**, Ross Tate, and Owen Arden
[doi.org/10.1109/CSF49147.2020.00017]

PIEs: Public Incompressible Encodings for Decentralized Storage CCS 2019
Ethan Cecchetti, Ben Fisch, Ian Miers, and Ari Juels
[doi.org/10.1145/3319535.3354231]

Obladi: Oblivious Serializable Transactions in the Cloud OSDI 2018
Natacha Crooks, Matthew Burke, **Ethan Cecchetti**, Sitar Harel, Rachit Agarwal, and Lorenzo Alvisi
[arxiv.org/abs/1809.10559]

Nonmalleable Information Flow Control CCS 2017
Ethan Cecchetti, Andrew C. Myers, and Owen Arden
🏆 ***Best Paper Award Finalist***
[doi.org/10.1145/3133956.3134054]

Solidus: Confidential Ledger Transactions via PVORM CCS 2017
Ethan Cecchetti, Fan Zhang, Yan Ji, Ahmed Kosba, Ari Juels, and Elaine Shi
[doi.org/10.1145/3133956.3134010]

Town Crier: An Authenticated Data Feed for Smart Contracts CCS 2016
Fan Zhang, **Ethan Cecchetti**, Kyle Croman, Ari Juels, and Elaine Shi
[doi.org/10.1145/2976749.2978326]

Workshop Papers

Securing Smart Contracts with Information Flow FAB 2020
Ethan Cecchetti, Siqiu Yao, Haobin Ni, and Andrew C. Myers [scfab.github.io/2020/]
[ethan.umiacs.io/papers/ifc-contracts-fab20.pdf]

Invited Talks

Compositional Security for Reentrant Applications
University of Pennsylvania PL Club Dec. 2021
Boston University Principles of Programming and Verification Seminar Oct. 2021
Brown University Systems Seminar Oct. 2021
UC Berkeley Security Seminar June 2021
UC San Diego Security Lunch Apr. 2021

Controlling Reentrancy with Information Flow
UC Santa Cruz Languages, Systems, and Data Lab Seminar Aug. 2019

One File for the Price of Three: Catching Cheating Servers in Decentralized Storage Networks
- MIT CSAIL Security Seminar — Sept. 2018
- UC Berkeley Security Seminar — Aug. 2018
- Initiative for CryptoCurrencies & Contracts (IC3) Meetup — Aug. 2018

Nonmalleable Information Flow Control
- Harvard Programming Languages Seminar — Apr. 2017

Professional Service

Program Committees
- OOPSLA 2022 External Review Committee [2022.splashcon.org/track/splash-2022-oopsla]
- FMBC 2022 [fmbc.gitlab.io/2022/]
- PLAS 2020 [pages.cispa.de/plas2020/]
- FAB 2020 [scfab.github.io/2020/]

Referee for Transactions on Programming Languages and Systems (TOPLAS) [dl.acm.org/journal/toplas]

Referee for Transactions on Privacy and Security (TOPS) [dl.acm.org/journal/tops]

Sub-reviewer for OOPSLA 2021, CCS 2020, FC 2020, PLDI 2019, and OOPSLA 2019

Department and University Service

Cornell Graduate and Professional Student Leadership Council	2019 – 2020
Cornell Graduate and Professional Student Mental Health Council	2018 – 2020
Organized Cornell's Security and Privacy Discussion Group	2016 – 2019
Computer Science Graduate Organization: President	2017 – 2019
Graduate and Professional Student Assembly: Computer Science Field Representative	2016 – 2018
Co-organizer of Computer Science Admitted PhD Student Visit Day	2016, 2017

Outreach

Volunteer teacher for Conrell's annual Expanding Your Horizons Conference	2016 – 2019
Volunteer teacher for Bootstrap, teaching 6th – 8th graders math and programming	2013

Teaching

Graduate TA *(Cornell University Computer Science)*
- CS 5430/5431: *Systems Security (and Practicum)* — Spring 2018
- CS 2110: *Object-Oriented Programming and Data Structures* — Fall 2015

Bootstrap Volunteer Teacher
- *Bootstrap Algebra (Orchard Gardens Middle School, Roxbury, MA)* — Spring 2013
- *Bootstrap Algebra (Newton Community Education, Newton, MA)* — Fall 2013

Head TA *(Brown University Computer Science)*

CSCI 1510: *Introduction to Cryptography and Computer Security*	Fall 2011
CSCI 0510: *Models of Computation*	Fall 2010

Head TA and Course Development *(Brown University Computer Science)*

CSCI 0190: *Programming with Data Structures and Algorithms*	Summer – Fall 2009