Ethan Cecchetti

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Education

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

MS, *Computer Science*, **Cornell University**, Ithaca, NY — 2019

ScB, *Mathematics – Computer Science*, **Brown University**, Providence, RI — 2008 – 2012

Academic Appointments

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

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

Industry Employment

VMware, Palo Alto, CA – *Research Intern* — 2019

TripAdvisor, Needham, MA – *Software Engineer* — 2012 – 2015

Google, Cambridge, MA – *Software Engineering Intern* — 2011

Awards and Honors

Distinguished Paper Award, European Conference on Object-Oriented Programming (ECOOP) — 2023

Best Paper Award, IEEE Symposium on Security and Privacy (S&P) — 2021

Best Paper Award Finalist, ACM Conference on Computer and Communication Security (CCS) — 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 Publications

Semantics for Noninterference with Interaction Trees — ECOOP 2023
Lucas Silver, Paul He, **Ethan Cecchetti**, Andrew K. Hirsch, Steve Zdancewic
🏆 ***Distinguished Paper Award***
[doi.org/10.4230/LIPIcs.ECOOP.2023.29]

Compositional Security for Reentrant Applications   IEEE S&P 2021
    Ethan Cecchetti, Siqiu Yao, Haobin Ni, and Andrew C. Myers
    🏆 *Best Paper Award*
    [arxiv.org/abs/2103.08577]

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 Publications

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
IEEE S&P (Oakland) 2024 [www.ieee-security.org/TC/SP2024/]
FCS 2023 PC co-chair [squera.github.io/fcs23/]
OOPSLA 2023 (External Review Committee) [2023.splashcon.org/track/splash-2023-oopsla]
PriSC 2023 [popl23.sigplan.org/home/prisc-2023]
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