

Ross Teixeira

Networking. Security. Policy.

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Education

Ph.D. Computer Science 2019 - Present

Princeton University

Advisors: Jonathan Mayer, Jennifer Rexford

M.S.E. Computer Science 2017 - 2019

Princeton University

GPA: 3.93

Advisor: Jennifer Rexford

Coursework: Advanced Computer Systems, Advanced Computer Networks, Automated Reasoning, Foundations of Probabilistic Modeling, Fairness in Machine Learning

B.A. Computer Science 2013 - 2017

UC Berkeley

GPA: 3.884

Coursework: Networking, Machine Learning, AI, Security, Data Structures, Algorithms, Computer Architecture, Discrete Math, Computational Photography

Research

Advisors: Jonathan Mayer, Jennifer Rexford 2019

Center for Information Technology Policy - Princeton University

Using network measurements to understand how average users experience the internet. Prior work: network security, data privacy, net neutrality, broadband availability.

Advisor: Jennifer Rexford 2018 - 2019

Princeton University

Collaborated on Sonata, an end-to-end system for monitoring network traffic and answering queries about packet statistics. Supports user queries written in the Spark stream processing language for a wide variety of network monitoring and security tasks, and operates at line rate using programmable switches.

Advisor: Armando Fox Spring 2017

UC Berkeley

Autostyle: A system that provides real-time code style feedback to students in large introductory computer science classes.

Publications

- User-Centric Networking: Putting the "I" in Internet. **Ross Teixeira**, Jennifer Rexford. *SIGCOMM Education Workshop '20*.
- No WAN's Land: Mapping U.S. Broadband Coverage with Millions of Address Queries to ISPs. David Major, **Ross Teixeira**, Jonathan Mayer. Submitted to *IMC '20 (ACM Internet Measurement Conference)*.

- Classifying Network Vendors at Internet Scale. Jordan Holland, **Ross Teixeira**, Paul Schmitt, Kevin Borgolte, Jennifer Rexford, Nick Feamster, Jonathan Mayer. Submitted to *IMC '20 (ACM Internet Measurement Conference)*.
- Carpe Elephants: Seize the Global Heavy Hitters. Rob Harrison, Shir Landau Feibish, Arpit Gupta, **Ross Teixeira**, S. Muthukrishnan, Jennifer Rexford. *SPIN '20 (ACM SIGCOMM Workshop on Secure Programmable Network Infrastructure)*.
- PacketScope: Monitoring the Packet Lifecycle Inside the Switch. **Ross Teixeira**, Rob Harrison, Arpit Gupta, Jennifer Rexford. *SOSR '20 (ACM Symposium on SDN Research)*.

Work Experience

Teaching Fellow

Summer 2020 - Present

McGraw Center for Teaching and Learning

Lead semesterly orientations for new graduate TAs. Conduct video observations and host workshops, time permitting.

Research Intern

Summer 2019

Microsoft Research

Worked with Dan Ports and Jacob Nelson on an Apache Spark-like language for expressing network telemetry queries that compile to the data plane of programmable switches.

Software Engineering Intern

Summer 2016

Pure Storage

Built infrastructure for 3rd party plugins to run on top the Pure system architecture.

Teaching

[Teaching Playlist](#)

Princeton University

2017 - Present

Graduate Teaching Assistant

- **COS226 - Data Structures (3 Semesters)**
- **COS461 - Computer Networks (1 Semester)**

Produced and gave review sessions, guest lectures. optional workshops, in-class demos, YouTube videos. Advised the development of a new programming environment for intro courses.

UC Berkeley

2015 - 2017

Undergraduate Teaching Assistant

CS168 - Introduction to the Internet: Architecture and Protocols (1 Semester)

- Taught weekly discussion sections and generated course material, including slides, worksheets, HW and exams.
- Produced and gave in-class demos and YouTube videos.
- Held office hours.

CS61B - Data Structures (4 Semesters)

- Taught weekly discussion and lab sections for 30 students in the competitive **CS Scholars** program. Wrote autograders, managed graders.

Volunteering/Mentoring

XRDS ("Crossroads") Magazine

June 2020 - Present

ACM

Invited Guest Editor - Responsible for curating the Winter 2020 edition. Drafted vision statement and article topics, pitched to editor team, and solicited authors. Contributing "Letter from the Editors."

Remote Academia

March 2020 - Present

[Online Community](#)

Co-Founder - Created and manage a Slack workspace for the academic community to collaborate on solutions and techniques for remote learning in response to COVID-19. 5000+ educators from 1000+ institutions worldwide. Curate a collaborative Google Doc of resources. Hosted weekly chats.

TechEd: Pedagogy, Policy, and Potpourri Reading Group

Fall 2019 - Present

Princeton University

Co-Founder: Run a weekly reading group that discusses pedagogy, curriculum, and diversity and inclusion topics in technical and scientific education, as well as the use of technology to enhance the classroom experience across all disciplines and the ethical questions raised by such endeavors.

COS126/226

May 2018 - August 2018

Princeton University

Project Advisor - With Professor Kevin Wayne, advised a student to create a simplified Java programming environment in IntelliJ, customized for introductory CS courses and easily extendable to other universities.

AI4ALL

February 2018 - August 2018

Princeton University

Research Mentor - Developed material for an Artificial Intelligence summer course and its applications to Internet of Things devices. Taught to high school students and mentored their final projects.

CS375 - Teaching Techniques in Computer Science

Summer 2017

Princeton University

Teaching Assistant - Mentored first-time TAs by providing daily feedback/advice on their teaching.

Computer Science Mentors

2015 - 2017

UC Berkeley

Founding Member - Supported junior mentors who taught weekly practice sessions for the introductory CS courses.

Awards

SEAS Excellence in Teaching Award - 2019

Siebel Scholar - August 2018

2nd Place - SIGCOMM Hackathon, August 2018

Commencement Speaker - Berkeley Computer Science, 2017

Invited Talks

- **Privacy in Education Technology** - INTERFACE Reading Group, March 2020

Travel Grants

- IAPP Global Privacy Summit '20
- CITP Tech Policy Bootcamp '18

- SIGCOMM '18
- SIGCSE '18