#### Palak Jain

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#### **EDUCATION**

#### Ph.D. in Computer Science: Boston University

Aug 2025 (expected)

• Advisor: Adam Smith

#### B.A. in Math and CS: Reed College

May 2018

- Commendation for Academic Excellence (2017-2018)
- Thesis: Oblivious Data Structures

#### Publications

#### CONFERENCE PUBLICATIONS:

## Time-Aware Projections: Truly Node-Private Graph Statistics under Continual Observation [paper link]

IEEE S&P 2024

FORC 2024, TPDP 2023

FORC 2023, TPDP 2022

Palak Jain, Adam Smith, Connor Wagaman

# Counting Distinct Elements in the Turnstile Model with Differential Privacy under Continual Observation [paper link]

NeurIPS 2023 FORC 2024, TPDP 2023

Palak Jain, Iden Kalemaj, Sofya Raskhodnikova, Satchit Sivakumar, Adam Smith

## The Price of Differential Privacy under Continual Observation [paper link] [oral presentation ICML '23] [spotlight talk TPDP '22]

ICML 2023

Palak Jain, Sofya Raskhodnikova, Satchit Sivakumar, Adam Smith

• Oral Presentation at ICML '23 (only 8.6% of accepted papers had oral presentations)

• Spotlight Talk at TPDP '22

### Universally Composable End-to-End Secure Messaging

CRYPTO 2022

[paper link] [talk link]

Ran Canetti, Palak Jain, Marika Swanberg, Mayank Varia

### PREPRINTS AND WORKSHOPS:

# Enforcing Demographic Coherence: A Harms Aware Framework for Reasoning about Private Data Release

Mark Bun, Marco Carmosino, Palak Jain, Gabriel Kaptchuk, Satchit Sivakumar

### Synopsis: Secure and Private Trend Inference from Encrypted Semantic Embeddings

Madelyne Xiao, Palak Jain, Micha Gorelick, Sarah Scheffler

# Privacy's Odd Couple: Privacy Law and Privacy Engineering on Inference and Information Recovery

PLSC 2024

Jeremy Seeman, Palak Jain, and Daniel Susser

### PUBLIC COMMENTS ON GOVERNMENT CALLS:

# Response to RFI on "Executive Branch Agency Handling of Commercially Available Information 2024 Containing Personally Identifiable Information" [link to comment] [link to RFI]

Rachel Cummings, Shlomi Hod, Palak Jain, Gabriel Kaptchuk, Tamalika Mukherjee, Priyanka Nanayakkara, and Jayshree Sarathy

• The Office of Management and Budget (OMB) issued this Request for Information (RFI) as part of the OMB's implementation of the Biden Administration Executive Order 14110, "Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence."

### Teaching

#### Network Security (CS), Boston University

Fall 2024

Invited Lecture on Differential Privacy

### Teaching Fellow: Network Security (CS 558), Boston University

Spring 2021, 2022

Teaching Fellow, received CS Excellence Award for Teaching for this course.

• Assisted in revamping the entire course during the first fully hybrid semester of the pandemic. Independently designed and taught course modules on cryptography review and the double ratchet algorithm (with homework).

#### Advising

#### Undergraduate Thesis: Reed College

• Advisee: Carter Luck

### Talks Lightning Talk: EnCORE Workshop EnCORE 2025 Enforcing Demographic Coherence: A Harms Aware Framework for Reasoning about Private Data Release Invited Talk: Ai4 Research Summit Ai4 2024 Monitoring Statistics on Sensitive Dynamic Data: The Price of Differential Privacy under Continual Observation Lightning Talk: CSLAW [talk link] CSLAW 2022 On joint work with Ero Balsa and Helen Nissenbaum Seminar Talks 2024 • Georgetown University: MPC-DP Reading Group • Johns Hopkins University: Theory Seminar • Brown University: Tech & Society Reading Group $2023 \cdot TCS + Seminar$ • Stanford University: Security Lunch • Boston University: Security Seminar RECENT AWARDS, GRANTS, FELLOWSHIPS, AND HONORS (Selected Participant) 2024 ISyE Junior Researcher Workshop 2024 (Grant) Boston University Center for Antiracist Research 2021-2022 • Project: Evaluate the potential 'harms' and 'utility' of differentially private disclosure of information as compared to that of other means of protecting the privacy of data. (Award) CS Excellence Award for Teaching at Boston University 2021 (Award) Chair's Fellowship at Boston University 2019-2024 Outreach and Mentoring Lunch with Experts @ Ai4 Ai4 2024 Invited Expert Women in ML Workshop @ NeurIPS '23 WiML 2023 Invited Mentor Civic Tech Hackathon 2023 Invited Mentor • This hackathon, hosted by Tech for Change, aims to bring together undergraduate and graduate students across the U.S. who are interested in the intersections of government/policy and computer programming. Boston University TCS 2023 - 2025 Social Coordinator • Coordinated weekly social events for the Boston University Theoretical Computer Science research group. Professional Service Boston University Algorithms and Theory Seminar 2022 - 2024Student Organizer Boston Area Differential Privacy Student Reading Group 2021-2024

Co-Founder, Student Organizer

• Jointly established and organized a differential privacy reading group with members from Boston University, Northeastern University, Harvard University, and University of Southern California.

#### Program Committee/ Reviewer:

ALT 2024, TPDP 2024, ICML 2024, NeurIPS 2023, ICML 2023, NeurIPS 2022

 Usenix Security 2024, ICALP 2023, TCC 2022, Asiacrypt 2022, ALT 2022, Usenix Security 2021, CSF 2020, IEEE S&P Shadow PC 2020

#### TECHNICAL SKILLS

Languages: R, Python, ReactJS, C