# Jaydeep Jitendra Borkar

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↑ http://jaydeepborkar.github.io/

• https://github.com/jaydeepborkar

# EDUCATION & RESEARCH EXPERIENCE \_\_\_\_\_

# Northeastern University

2021 - present

PhD in Computer Sciences Advisor: Prof. David A. Smith

2023 - present

### Meta Superintelligence Labs

June 2025 - present

Visiting Researcher, New York

Research on LLM privacy and safety.  $\,$ 

### MIT-IBM Watson AI Lab

2020 - 2021

External Research Student Advisor: Dr. Pin-Yu Chen

Research on adversarial machine learning.

### Savitribai Phule Pune University

2016 - 2020

Bachelor's degree in Computer Engineering

# CIFAR Deep Learning + Reinforcement Learning Summer School

Aug 2020

Hosted by Mila (25% acceptance rate)

Among 300 students selected across 45 countries for the summer school

**Research Interests**: Privacy and safety in language models, training data extraction (memorization) in LLMs, synthetic data.

## Papers & Research Projects \_\_

# Privacy Ripple Effects from Adding or Removing Personal Information in Language Model Training

**Jaydeep Borkar**, Matthew Jagielski, Katherine Lee, Niloofar Mireshghallah, David A. Smith, Christopher A. Choquette-Choo

Association for Computational Linguistics (ACL) 2025

# Recite, Reconstruct, Recollect: Memorization in LMs as a Multifaceted Phenomenon

USVSN Sai Prashanth, Alvin Deng, Kyle O'Brien, Jyothir S V, Mohammad Aflah Khan, **Jaydeep Borkar**, Christopher A. Choquette-Choo, Jacob Ray Fuehne, Stella Biderman, Tracy Ke, Katherine Lee, Naomi Saphra *International Conference on Learning Representations (ICLR)* 2025

# What can we learn from Data Leakage and Unlearning for Law? Jaydeep Borkar

Generative AI and Law (GenLaw) workshop, ICML 2023 https://genlaw.github.io/CameraReady/12.pdf

# Mind the gap: Analyzing lacunae with transformer-based transcription

Jaydeep Borkar and David A. Smith

 $Workshop\ on\ Computational\ Paleography,\ ICDAR\ 2024$ 

https://arxiv.org/abs/2407.00250

### Extracting Training Data from Pre-trained and Fine-tuned GPT-2

CS 7150 Deep Learning class project

Showed that fine-tuned models can memorize and leak both fine-tuning and pre-training data.

Project report: https://jaydeepborkar.github.io/7150\_project\_report.pdf

### Simple Transparent Adversarial Examples

Jaydeep Borkar and Pin-Yu Chen

Workshop on Security and Safety in Machine Learning Systems, ICLR 2021 https://aisecure-workshop.github.io/aml-iclr2021/papers/48.pdf

# Talks \_\_\_\_

Google ML Privacy Seminar: talk on Privacy Ripple Effects.

Northeastern CS 5100: invited guest lecture on privacy and security in LLMs.

### Organizing \_

### Trustworthy ML Initiative

Co-organizer of the Trustworthy ML Initiative along with Prof. Hima Lakkaraju (Harvard), Sara Hooker (Cohere for AI), Dr. Sarah Tan (Salesforce AI), Dr. Subho Majumdar (Vijil), Chhavi Yadav (UC San Diego), Dr. Chirag Agarwal (Harvard), Prof. Haohan Wang (UIUC), and Marta Lemanczyk (Hasso-Plattner-Institut).

# Courses

Machine Learning CS 6140, Natural Language Processing CS 6120, Deep Learning CS 7150, Machine Learning Security and Privacy CY 7790, Theory and Methods in Human-Computer Interaction CS 7340, AI as an Archival Science CS 7180.

### TEACHING EXPERIENCE

Natural Language Processing CS 6120 - TA
Foundations of AI CS 5100- TA
Foundations of Data Science DS 3000 - TA
Product Development for Large Language Models CS 7180 - TA
Introduction to Computer Science Research CS 3950 and CS 4950 - TA
Introduction to Machine Learning and Data Mining DA 5030 - TA

Summer 2024

Spring 2024

Fall 2023

Summer 2023 Spring 2023

Summer and Fall 2022