

# BRIAN JAY TANG

+1 630-880-3691

✓ byron123t@gmail.com✓ bjaytang@umich.edu

https://github.com/byron123t

in https://www.linkedin.com/in/bjaytang/

CV Last Updated: 2024-03-06

**G**https://scholar.google.com/citations?user=pgkhBk8AAAAJ&hl=en

• https://www.bjaytang.com/

## **EDUCATION**

PhD Candidate | Computer Science and Engineering

University of Michigan - Ann Arbor

Bachelor of Science | Major: Computer Science

University of Wisconsin - Madison

Fall 2021 – Present Advised by Kang G. Shin Fall 2017 – Winter 2020

Advised by Kassem Fawaz, Varun Chandrasekaran

#### RESEARCH INTERESTS

Thesis: Protecting Privacy and Autonomy in the Era of Large Language Models

Software Systems: Mobile Computing, Real-Time Systems, Cyber-Physical Systems, AI Systems

**Security and Privacy**: Usable Privacy, Web Privacy, Face Recognition Privacy, Social Privacy, Mobile Privacy **Artificial Intelligence**: Natural Language Processing, Adversarial ML, Computer Vision, Cognitive Architectures

#### **SKILLS**

**Programming**: Python (Expert), JavaScript (Familiar), HTML (Familiar), SQL (Proficient), C++ (Proficient)

**Software Development**: GitHub, Perforce, Qt, NginX, Flask, Squish, AWS, Redis **Machine Learning**: TensorFlow, PyTorch, Pandas, NumPy, D3.js, HuggingFace

Languages: English (Native), Chinese Mandarin (Spoken-Only), Japanese (Elementary), French (Elementary)

Hobbies & Interests: Reading, Drumming, Gaming, Anime, Meditation, Hiking, Camping, Flight Sim

## **WORK EXPERIENCE**

#### **Graduate Research Assistant**

Fall 2021 – Present

University of Michigan

Researching usable AI tools to protect user privacy, analyze online privacy, and regulate data collection/sharing.

Research Intern Spring 2021 – Fall 2021

University of Wisconsin - Madison

• Researched fairness properties of face recognition and created privacy controller for social robots.

#### **Undergraduate Research Assistant**

Fall 2018 – Spring 2021

University of Wisconsin - Madison

• Researched security, privacy, and fairness properties of ML systems (face recognition, image recognition, and NLP).

#### **Software Engineering Intern**

Summer 2019

Roblox Corporation

Created core features for Roblox Studio's script editor in a test-driven development setting.

### **Software Engineering Intern**

Summer 2018

Optum, UHG

• Designed and developed data visualization application aggregating 50+ million records from security databases.

#### PUBLICATIONS AND PREPRINTS

- [1] **Brian Tang**, Noah T. Curran, Florian Schaub, and Kang G. Shin. "Embedding Advertising in LLM Chatbots: Risks and Ethical Considerations". In: *In Preparation: ACM CHI Conference on Human Factors in Computing Systems*. 2025.
- [2] **Brian Tang**, Duc Bui, and Kang G. Shin. "Navigating Cookie Compliance Across the Globe". In: *Under Submission: Privacy Enhancing Technologies Symposium*. 2024.
- [3] **Brian Tang** and Kang G. Shin. "Steward: Natural Language Web Automation". In: <u>Under Submission:</u> The 30th Symposium on Operating Systems Principles. 2024.

- [4] Noah T. Curran, Minkyoung Cho, Ryan Feng, Liangkai Liu, **Brian Jay Tang**, Kang G. Shin, Pedram MohajerAnsari, and Mert D. Pesé. "Short: Achieving the Safety and Security of the End-to-End AV Pipeline". In: *Under Submission: ESCAR USA*. 2024.
- [5] **Brian Tang** and Kang G. Shin. "Eye-Shield: Real-Time Protection of Mobile Device Screen Information from Shoulder Surfing". In: *32nd USENIX Security Symposium*. 2023. URL: https://rtcl.eecs.umich.edu/rtclweb/assets/publications/2023/usenix23-tang.pdf.
- [6] Duc Bui, **Brian Tang**, and Kang G. Shin. "Detection of Inconsistencies in Privacy Practices of Browser Extensions". In: 44th IEEE Symposium on Security and Privacy. 2023. URL: https://www.bjaytang.com/pdfs/ExtPrivA.pdf.
- [7] Harrison Rosenberg, **Brian Tang**, Kassem Fawaz, and Somesh Jha. "Fairness Properties of Face Recognition and Obfuscation Systems". In: *32nd USENIX Security Symposium*. 2023. URL: https://arxiv.org/abs/2108.02707.
- [8] **Brian Tang**, Dakota Sullivan, Bengisu Cagiltay, Varun Chandrasekaran, Kassem Fawaz, and Bilge Mutlu. "Confidant: A Privacy Controller for Social Robots". In: 17th ACM/IEEE International Conference on Human-Robot Interaction. 2022. URL: https://arxiv.org/abs/2201.02712.
- [9] Duc Bui, **Brian Tang**, and Kang G. Shin. "Do Opt-Outs Really Opt Me Out". In: 29th ACM Conference on Computer and Communications Security. 2022. URL: https://dl.acm.org/doi/10.1145/3548606.3560574.
- [10] Varun Chandrasekaran, Chuhan Gao, **Brian Tang**, Kassem Fawaz, Somesh Jha, and Suman Banerjee. "Face-Off: Adversarial Face Obfuscation". In: 21st Privacy Enhancing Technologies Symposium. 2021. URL: https://arxiv.org/abs/2003.08861.
- [11] Varun Chandrasekaran, **Brian Tang**, Nicolas Papernot, Kassem Fawaz, Somesh Jha, and Xi Wu. "Rearchitecting Classification Frameworks For Increased Robustness". In: (2020). URL: <a href="https://arxiv.org/abs/1905.10900">https://arxiv.org/abs/1905.10900</a>.

## HONORS AND AWARDS

3 Minute Thesis Competition ( <u>Finalist</u> ) Recovering Privacy and Autonomy in the Era of Large Language Models	Fall 2023
College of Engineering Fellowship University of Michigan 1st year PhD fellowship	Fall 2021
Qualcomm Innovation Fellowship (Selected Abstract) Autonomous Vehicle Domain Adaptation	Spring 2021
CVS Health Foundation Program Scholarship (Outstanding Children of CVS Employees)	Fall 2017
PATENTS	
Real-Time Protection For Mobile Devices From Shoulder Surfing[5] U.S. Pat. App. No. 63/468,650-Conf. #8672	Spring 2023 Filed
GRANT PROPOSAL EXPERIENCE	
Securing Interactions between Driver and Vehicle Using Batteries National Science Foundation (NSF) Cloud Credits (Cloudbank)	Summer 2023 Granted, \$16k
Securing Cyber-Physical System Communication and Control Defense University Research Instrumentation Program (DURIP)	Spring 2023 Granted, \$300k
SERVICE	

External/Sub Reviewer

Spring 2020 - Fall 2023

USENIX Security 2021, PoPETS 2022, NeurIPS 2023, CHI 2024

## PRESENTATIONS AND TALKS

Recovering Privacy and Autonomy in the Presence of Language Models	Sept 2023
Ann Arbor, MI   3 Minute Thesis Finalist Competition (Engineering Graduate Symposium)	
Eye-Shield: Real-Time Protection of Mobile Device Screen Information from Shoulder Surfing[5]	Aug 2023
Anaheim, CA   USENIX Security Symposium	
Confidant: A Privacy Controller for Social Robots[8]	Mar 2022
The Internet   ACM/IEEE International Conference on Human-Robot Interaction	
Face-Off: Adversarial Face Obfuscation[10]	Jan 2021
The Internet   VMWare - NSF: Data Privacy and Edge Computing	
Face-Off: Adversarial Face Obfuscation[10]	July 2021
The Internet   Proceedings on Privacy Enhancing Technologies Symposium	