



BRIAN JAY TANG

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🌐 <https://www.linkedin.com/in/bjaytang/>

🐙 <https://github.com/byron123t>

🔗 <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

Fall 2021 – Present

Advised by [Kang G. Shin](#)

Bachelor of Science | *Major: Computer Science*

University of Wisconsin - Madison

Fall 2017 – Winter 2020

Advised by [Kassem Fawaz](#), [Varun Chandrasekaran](#)

RESEARCH INTERESTS

Thesis: Recovering Privacy and Autonomy in the Presence of Language Models

Security and Privacy (S&P): Usable Privacy, Web Privacy, Face Recognition Privacy, Social Privacy, Mobile Privacy

Artificial Intelligence (AI): Natural Language Processing, Adversarial ML, Computer Vision, ML Fairness, AGI

Human-Computer Interaction (HCI): Usable Privacy, Human-Robot Interaction, Digital Safety, AI Ethics

SKILLS

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

Software Development: GitHub, Perforce, Qt, NginX, Flask, Squish, AWS, Redis

Machine Learning: TensorFlow, PyTorch, Pandas, NumPy, D3.js

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

Hobbies & Interests: Reading, Drumming, Gaming, Anime, Meditation

WORK EXPERIENCE

Graduate Research Assistant

University of Michigan

Fall 2021 – Present

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

Research Intern

University of Wisconsin - Madison

Spring 2021 – Fall 2021

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

Undergraduate Research Assistant

University of Wisconsin - Madison

Fall 2018 – Spring 2021

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

Software Engineering Intern

Roblox Corporation

Summer 2019

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

Software Engineering Intern

Optum, UHG

Summer 2018

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

PUBLICATIONS AND PREPRINTS

- [1] **Brian Tang**, Duc Bui, and Kang G. Shin. "Detection and Analysis of Cookie Violations". In: *Under Submission: 45th IEEE Symposium on Security and Privacy*. 2024.
- [2] **Brian Tang** and Kang G. Shin. "Steward: Natural Language Web Automation". In: *Under Submission: The 35th ACM Web Conference (WWW)*. 2024.
- [3] **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>.

- [4] 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>.
- [5] 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>.
- [6] **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>.
- [7] 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>.
- [8] 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>.
- [9] Varun Chandrasekaran, **Brian Tang**, Nicolas Papernot, Kassem Fawaz, Somesh Jha, and Xi Wu. "Rearchitecting Classification Frameworks For Increased Robustness". In: (2020). URL: <https://arxiv.org/abs/1905.10900>.

HONORS AND AWARDS

(Finalist) 3 Minute Thesis Competition	Fall 2023
Finalist presentation on privacy and autonomy in presence of language models	
College of Engineering Fellowship	Fall 2021
University of Michigan 1st year PhD fellowship	
(Selected Abstract) Qualcomm Innovation Fellowship	Spring 2021
Selected abstract on autonomous vehicle domain adaptation	
CVS Health Foundation Program	Fall 2017
Scholarship for outstanding children of CVS employees	

PATENTS

Real-Time Protection For Mobile Devices From Shoulder Surfing	Spring 2023
U.S. Pat. App. No. 63/468,650-Conf. #8672	Filed

GRANT PROPOSAL EXPERIENCE

Securing Interactions between Driver and Vehicle Using Batteries	Summer 2023
National Science Foundation (NSF) Cloud Credits (Cloudbank)	Granted, \$16k
Securing Cyber-Physical System Communication and Control	Spring 2023
Defense University Research Instrumentation Program (DURIP)	Granted, \$300k

SERVICE

External/Sub Reviewer	Spring 2020 - Fall 2023
USENIX Security 2021, PoPETS 2022, NeurIPS 2023, CHI 2024	

PRESENTATIONS AND TALKS

LLM Automation and Security and Privacy Concerns[2]	Oct 2023
Ann Arbor, MI <i>SECRIT Security Reading Group</i>	
Recovering Privacy and Autonomy in the Presence of Language Models	Sept 2023
Ann Arbor, MI <i>3 Minute Thesis Finalist Competition (Engineering Graduate Symposium)</i>	
Eye-Shield: Real-Time Protection of Mobile Device Screen Information from Shoulder Surfing[3]	Aug 2023
Anaheim, CA <i>USENIX Security Symposium</i>	
Confidant: A Privacy Controller for Social Robots[6]	Mar 2022
The Internet <i>ACM/IEEE International Conference on Human-Robot Interaction</i>	
Face-Off: Adversarial Face Obfuscation[8]	Jan 2021
The Internet <i>VMWare - NSF: Data Privacy and Edge Computing</i>	
Face-Off: Adversarial Face Obfuscation[8]	July 2021
The Internet <i>Proceedings on Privacy Enhancing Technologies Symposium</i>	

PERSONAL PROJECTS

Algorithmic Trading Framework

Summer 2019

<https://github.com/ramasrirama99/AlgoTradeFramework>

Transcend UW Website

Spring 2018

<https://www.transcenduw.com/>

Personal Website

Summer 2021

<https://www.bjaytang.com/>