BRIAN JAY TANG

☎ +1 630-880-3691
✉ byron123t@gmail.com
✉ bjaytang@umich.edu

CV Last Updated: 2023-08-17
🔗 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*   Fall 2021 – Present
University of Michigan - Ann Arbor

Bachelor of Science | *Major: Computer Science*   Fall 2017 – Winter 2020
University of Wisconsin - Madison

RESEARCH INTERESTS

Thesis: Augmenting Privacy and Autonomy with Artificial Intelligence
Security and Privacy (S&P): Usable Privacy, Web Privacy, Face Recognition Privacy, Social Privacy, Mobile Privacy
Machine Learning (ML): Adversarial ML, Computer Vision, Natural Language Processing, ML Fairness
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, Investing, Gaming, Anime, Skateboarding, Meditation

WORK EXPERIENCE

Graduate Research Assistant   Fall 2021 – Present
University of Michigan

- Researching usable ML 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

[1] **Brian Tang**, Duc Bui, and Kang G. Shin. "Detection and Analysis of Cookie Violations". In: *In Review: 30th ACM Conference on Computer and Communications Security*. 2023.

[2] **Brian Tang** and Kang G. Shin. "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.

[3] 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.

[4] 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.

[5] **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.

[6] 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.

[7] 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.

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

PRESENTATIONS AND TALKS

Eye-Shield: Real-Time Protection of Mobile Device Screen Information from Shoulder Surfing[2]	Aug 2023
Anaheim, CA | *USENIX Security Symposium*	
Confidant: A Privacy Controller for Social Robots[5]	Mar 2022
The Internet | *ACM/IEEE International Conference on Human-Robot Interaction*	
Face-Off: Adversarial Face Obfuscation[7]	Jan 2021
The Internet | *VMWare - NSF: Data Privacy and Edge Computing*	
Face-Off: Adversarial Face Obfuscation[7]	July 2021
The Internet | *Proceedings on Privacy Enhancing Technologies Symposium*	

HONORS AND AWARDS

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	

SERVICE

NeurIPS	Summer 2022
External/Sub Reviewer – aided PC member with a paper review	
PoPETS	Spring 2021
External/Sub Reviewer – aided PC member with a paper review	
USENIX Security	Spring 2020
External/Sub Reviewer – aided PC member with a paper review	

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)	In Progress, $300k
PriConv: A Content-Aware Conversational Privacy Controller for Virtual Assistants	Summer 2022
WhatsApp Research Awards: Privacy-Aware Program Analysis	Rejected
Collecting and Managing Third-Party Data Flows in Compliance with Privacy Policies	Spring 2022
JP Morgan Chase AI Research Awards	Rejected

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/