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BRIAN TANG

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EDUCATION

Madison, WI | **University of Wisconsin – Madison** | **Fall 2017 – Winter 2020**

- B.S. in Computer Science
- Scholarships: CVS Health Foundation Program
- CS Coursework: Information security, Operating systems, Machine learning, Data structures, Algorithms, Discrete math, Artificial intelligence, Cryptography, Linear algebra, Calculus, Applied statistics, DBMS, Statistical learning theory, Security&Privacy topics, Computer vision, Virtual reality

PUBLICATIONS AND PREPRINTS

- Face-Off: Adversarial Face Obfuscation | V. Chandrasekaran, C. Gao, **B. Tang**, K. Fawaz, S. Jha, S. Banerjee | PETS, July 2021
- Rearchitecting Classification Frameworks for Increased Robustness | V. Chandrasekaran, **B. Tang**, N. Papernot, K. Fawaz, S. Jha, X. Wu

EXPERIENCE

Software Engineering Intern | **Roblox** | **Summer 2019**

- Create core features for Roblox Studio's script editor in a test-driven development setting
- Develop integrated JavaScript Squish tests for evaluating expected behavior of features
- Evaluate regression models for vulgarity detection

Research Assistant | **UW Security & Privacy Group** | **Fall 2018 – Present**

- Create personalized privacy controller and robot privacy literature survey
- Create black-box evaluation for transferability of adversarial attacks with custom loss functions
- Develop web app for users to upload and obfuscate faces, allowing users to preserve privacy on social media platforms
- Design experiments and write paper for machine learning robustness project
- Create hierarchical robust classification system using LiDAR, certified (smooth) DNNs, and adversarially trained DNNs

Software Engineering Intern | **Optum – UnitedHealth Group** | **Summer 2018**

- Develop data visualization web app that aggregates over 50 million records from various security databases and scans
- Present project to audience of Optum's executives, directors, security analysts, and interns

Website Lead, Executive Team | **Transcend UW** | **Fall 2017 – Spring 2020**

- Design, create, update Transcend UW website using Wix (https://www.transcenduw.com)
- Manage Transcend Madison annual competition, with more than $60,000 in prizes
- Create randomized greedy algorithm to match mentors with students based on schedules and areas of interest

LARGE PROJECTS

Backend Developer | **Algorithmic Trading Framework** | **Summer 2018 – Summer 2020**

- Develop Python framework for simulating algorithms on the stock market using API data
- Implement model to predict large price movements and regression to find an optimal sell period

LANGUAGES, TECHNOLOGIES, AND SKILLS (PROFICIENT)

- **Programming:** Python, C++, JavaScript, SQL, HTML, TensorFlow, PyTorch, Pandas, NumPy, D3.js, Qt, NginX, Flask, Squish
- **APIs & Software:** GitHub, Perforce(p4v), Overleaf, TD Ameritrade, Azure, AWS
- **Languages:** English – *Native* | Mandarin Chinese – *Intermediate* | French – *Elementary* | Japanese – *Elementary*
- **Hobbies & Interests:** Reading, Investing, Livestreaming, Anime, Tabletop/Video Games, Meditation, Chocolate

OBJECTIVES AND GOALS

- Learn more about creating more intuitive and usable software from software engineering and research
- Work on challenging projects to improve coding and problem-solving skills
- Meet a diverse set of people from a variety of backgrounds and perspectives