

Machine Masquerade: An Interactive Exploration of the Limits of Machine Recognition

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Abstract

This installation allows participants to experiment with ‘fooling’ facial detection models and encourages participants to reflect on the limits of extant surveillance technologies. Physical adversarial attacks ‘fool’ such models into labelling a face as ‘unknown’ or ignoring a face altogether, using physical props to alter the visual input to a model. Try out one of the props to conduct your own adversarial attack on a facial detection model!

Bios

Hi! We are Glen and Ned. We are both PhD candidates at the College of Engineering and Computer Science, Australian National University. Glen studies the social implications of emerging technology practices, and Ned studies the participation of end users in developing AI-enabled systems.

Photos

Glen



Ned



Requirements

Please note, for computer peripherals and furniture requirements we have indicated which items we can provide ourselves, and which we will need OzCHI support to access.

Space and light:

- Photo booth space: a 1m x 1m space, ideally in a corner of the OzCHI room, with power access
- Data access: none required (all processing to be completed on device).
- Lighting/sound requirements: stable ambient lighting

Computer peripherals:

- Computer monitor (ideally 27") (including power cord)
- [Raspberry Pi 4 Model B](#) (including power cord) – can provide ourselves
- [Luxonis Oak-D lite](#) camera OR Raspberry Pi [High Quality \(HQ\) Camera](#) – can provide ourselves, or source and be reimbursed if funds are available
- (For Raspberry Pi camera) [6mm Wide Angle Camera Lens \(CS-Mount\)](#) – can provide ourselves
- (For Raspberry Pi camera) [Mounting Plate for Camera](#) – can provide ourselves
- [Tripod for the camera](#) – can provide ourselves
- HDMI-HDMI (to connect the monitor and Raspberry Pi) – can provide ourselves
- Power socket

Furniture requirements:

- A table to put the camera on
- Wall mount for the monitor
- A suitcase – can provide ourselves
- Several props for participants to try on (e.g., eyeglasses), to be held in the suitcase – can provide ourselves
- A small circular rug 'stage'

System Overview

