# On Face Recognition

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Full Disclosure: I work on Face Recognition

## Military-Grade Face Recognition...



## Early Work on Low-Light Face Recognition

0.089 nits 0.0768 nits 0.015 nits



Normal GenIII+ LWIR Intensifier Thermal

## First Work Pushing Ranges Out to 100-200M

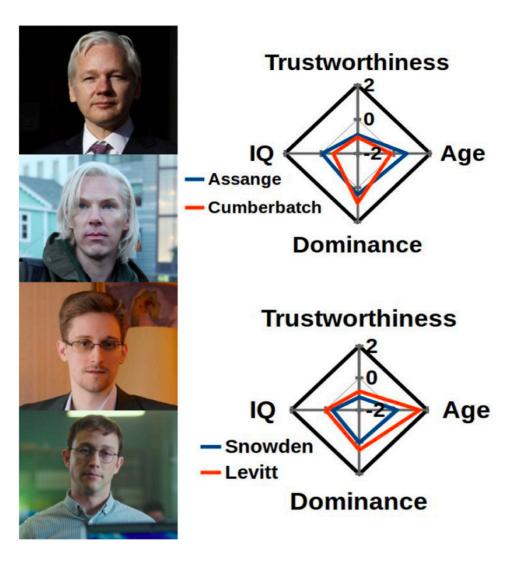




## Undergraduate Research!



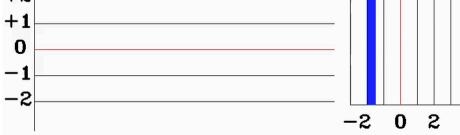
# Subjective Attribute Predictions



McCurrie et al. Image and Vision Computing, 2018.

### Trustworthiness





# "Ban Facial Recognition Software Now"

Opinion | THE PRIVACY PROJECT

#### What Happens When Employers Can Read Your Facial Expressions?

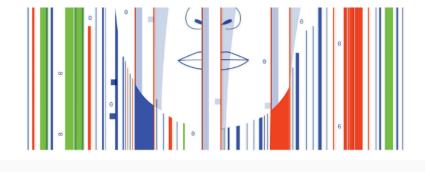
The benefits do not come close to outweighing the risks.

#### By Evan Selinger and Woodrow Hartzog

Dr. Selinger is a professor of philosophy. Dr. Hartzog is a professor of law and computer science.



We support a wide-ranging ban on this powerful technology. But even limited prohibitions on its use in police body cams, D.M.V. databases, public housing and schools would be an important start.



Harry Campbell

https://www.nytimes.com/2019/10/17/opinion/facial-recognition-ban.html

The Good

# Facial-recognition software precision may be years away

#### Low resolutions, tilted heads still confound

By Hiawatha Bray Globe Staff, April 29, 2013, 12:00 a.m.





https://www.bostonglobe.com/business/2013/04/28/facial-recognition-technology-after-marathon-bombings/ VN9gyIUqtps5EVfjI47P1J/story.html

# The Bad

The New York Times

#### As Cameras Track Detroit's Residents, a Debate Ensues Over Racial Bias

Studies have shown that facial recognition software can return more false matches for African-Americans than for white people, a sign of what experts call "algorithmic bias."

https://www.nytimes.com/2019/07/08/us/detroit-facial-recognition-cameras.html

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The Ugly

## Hikvision Markets Uyghur Ethnicity Analytics, Now Covers Up

By: Charles Rollet, Published on Nov 11, 2019

Hikvision has marketed an AI camera that automatically identifies Uyghurs, on its China website, only covering it up days ago after IPVM questioned them on it.



This AI technology allows the PRC to automatically track Uyghur people, one of the world's most persecuted minorities.

https://ipvm.com/reports/hikvision-uyghur