

Navigation

Toggle Menu

Notre Dame Photometric Stereo

Iris Dataset (Wacv 2019)

Face Recognition Grand
Challenge (FRGC v2.0) data
collection

ND-2006 Data Set

ND-Iris-0405 Data Set

The Point and Shoot Face and
Person Recognition Challenge
(PaSC)

3D Twins Expression Challenge
(3D-TEC) Data Set

The ND-Near Infrared and
Visible-Light (ND-NIVL)

ND-CrossSensor-Iris-2013 Data
Set

ND-Collection J2

Face and Ocular Challenge Series
(FOCS) data collection

ND-IIITD Retouched Face
Database

EFCT 2017

ND Cosmetic Contact Lenses
2013 Data Set

The Gender from Iris Dataset
(ND-GFI)

The Notre Dame LivDet-Iris 2017
Subset

ND-Collection B

ND-Collection D

ND Iris Contact Lenses 2010

ND-TWINS-2009-2010

ND-Collection X1

Multiple Biometric Grand
Challenge (MBGC) Version 2
Data Collection

UTD Data Collection

ND-Collection E

ND-Collection F

The Notre Dame Contact Lens
Dataset 2015(NDCLD15)

IJB 2017 Challenge

Datasets

We have been collecting data sets and conducting baseline and advanced personal identification studies using biometric measurements. We are committed to releasing all data collated to eligible research groups, with appropriate controls to forbid on-line distribution outside the research community. Data is distributed using rsync.

If you are interested in obtaining any of the biometric datasets described below, please follow these instructions:

- Download all applicable license agreements. Several of our datasets require more than one license agreement.
- Have the license agreement reviewed and signed BY AN INDIVIDUAL AUTHORIZED TO MAKE LEGAL COMMITMENTS ON BEHALF OF YOUR INSTITUTION. WE CANNOT ACCEPT LICENSES SIGNED BY STUDENTS OR FACULTY MEMBERS. YOUR INSTITUTION'S LEGAL OFFICE MUST REVIEW AND EXECUTE THE LICENSE.
- Return the properly signed license agreement via your INSTITUTIONAL e-mail address (we cannot accept license agreements sent through third party e-mail providers) to cvrl@nd.edu or fax, attention D. Wright, to 1-574-631-9260.
- Include in the e-mail/cover page the full name, title, address and phone number of the institution and institutional point of contact.

Upon our receipt and approval of the license agreement, download instructions will be sent to the licensee via e-mail.

Notre Dame Photometric Stereo Iris Dataset (Wacv 2019)

Data Type: IR Iris Still, Approximate Download Size: 2.4 GB

[License Agreement](#)

This database offers iris images (with and without contact lenses) of the same eyes captured shortly one after another with illumination coming from two different locations. 5,796 iris images in total were acquired by the LG IrisAccess 4000 sensor from 119 subjects. This set is divided into four subsets used in the experiments: (a) 1,800 images of irises wearing regular (with dot-like pattern) textured contact lenses, as shown in Fig. 6a in the wAcv 2019 paper; (b) 864 images of irises wearing irregular (without dot-like pattern) textured contact lenses, as shown in Fig. 6b in the WACV 2019 paper; (c) 1,728 images of irises wearing clear contact lenses (without any visible pattern), and (d) 1,404 images of authentic irises without any contact.

Face Recognition Grand Challenge (FRGC v2.0) data collection

Data Type: 3D Face, Visible Face Images, Approximate Download Size: 72 GB

[License Agreement](#)

Information about the FRGC program may be found [here](#). Note: the FRGC 1.0a data collection has been superseded by the FRGC v2.0 collection and is no longer available. As of 4/2/2014 the Bee Software has been separated from the FRGC 2.0 dataset. If you wish to download it as well as the FRGC 2.0 dataset, please download and execute the [Bee software license agreement](#). To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**

ND-2006 Data Set

Data Type: Face 3D, Approximate Download Size: 29 GB

[License Agreement](#)

The ND-2006 data set contains a total of 13,450 images containing 6 different types of expressions (Neutral, Happiness, Sadness, Surprise, Disgust and Other). A total of 888 distinct persons, with as many as 63 images per subject are available in this data set. The data set corresponds exactly to the data set described in: Faltemier, T.C.; Bowyer, K.W.; Flynn P.J.; Using a Multi-Instance Enrollment Representation to Improve 3D Face Recognition, Proc. First IEEE International Conference on Biometrics: Theory, Applications, and Systems, September 2007, pp.1 - 6. To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**

ND-Iris-0405 Data Set

Data Type: IR Iris Still, Approximate Download Size: 20.5 GB

[License Agreement](#)

A technical report describing this data can be found [here](#). The data set contains 64,980 iris images obtained from 356 subjects (712 unique irises) between January 2004 and May 2005. To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**

[Back to Top](#)

The Point and Shoot Face and Person Recognition Challenge (PaSC)

Data type: Face Still image and Face Video, Approximate Download Size: 71 GB

[License Agreement](#)

Information about the PaSC effort may be found at <http://www.nist.gov/itl/iad/ig/face.cfm> and <http://www.cs.colostate.edu/pasc>. To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**



3D Twins Expression Challenge (3D-TEC) Data Set

Data Type: Face 3D, Approximate Download Size: 1.5 GB

[License Agreement](#)

This data set contains 3D face scans for 107 pairs of twins. There are $107 \times 2 = 214$ individuals, each with a 3D face scan with a smiling expression and a scan with a neutral expression, and so $214 \times 2 = 428$ scans. The scans were acquired with a Minolta Vivid 910. To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**

The ND-Near Infrared and Visible-Light (ND-NIVL)

Data type: IR & Visible Face Still, Approximate Download Size: 404 GB

[License Agreement](#)

The image collection comprises visible-light and near-IR face images of 574 subjects acquired from fall 2011 to spring 2012. There are a total of 2,341 visible-light face images of the 574 persons. There are a total of 22,264 near-IR face images, coming from two 230 subject-sessions. A total of 402 subjects had both visible-light and near-IR face images collected in one or more sessions in fall 2011 and also one or more sessions in spring 2012. To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**

ND-CrossSensor-Iris-2013 Data Set

Data type: IR Iris still, Approximate Download Size: 122 GB

[License Agreement](#)

This data set was initially released for the Cross Sensor Iris Recognition Challenge associated with the BTAS 2013 Conference. This dataset consists of 27 sessions of data with 676 unique subjects. An average session contains 160 unique subjects which have multiple images from both the LG2200 and LG4000 iris sensors. There are 29,986 images from the LG4000 and 116,564 images from the LG2200. Every subject occurs in at least two sessions across the entire data set. This data set spans three years, 2008 to 2010. The initial images are taken from both sensors and are 640 by 480. There are additional images included in this data set, known as the modified LG2200 images. The original images have been stretched vertically by 5% to compensate for the non-unit aspect ratio of the digitizer used in the LG2200 computer-hosted runtime acquisition system (this elongation was suggested by Imad Malhas of IrisGuard inc. in 2009). Hence these additional images are of size 640 by 504. To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**

ND-Collection J2

Data Type: 3D + 2D Ear Images, Approximate Download Size: 35 GB

[License Agreement](#)

1800 3D (and corresponding 2D) profile (ear) images from 415 human subjects captured between 2003 and 2005. Corresponds to data used in Yan and Bowyer, "Biometric recognition using three-dimensional ear shape," PAMI 29(8), August 2007.

Face and Ocular Challenge Series (FOCS) data collection

Data Type: Visible Face Images, Visible Face Video, NIR Iris and Ocular Region, Approximate Download Size: 98.5 GB

[FOCS License Agreement](#), [MBGC UTD License Agreement](#), [MBGC UTD Permission](#)

Information about the FOCS program may be found [here](#). Please be sure to execute all three required documents to receive download information. To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**

Back to Top

ND-IIITD Retouched Face Database

Data type: Face Still image, Approximate Download Size: 4.3 GB

[License Agreement](#)

The ND-IIITD Retouched Faces database is a dataset of original face images and retouched versions of those face images. The database contains 2600 original images and 2275 altered images. It is meant for use in the problem of developing methods to classify a face image as original or retouched. To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**



EFCT 2017

Data type: Face Still image, Approximate Download Size: 2.2 GB

[License Agreement](#)

To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**

ND Cosmetic Contact Lenses 2013 Data Set

Data type: IR Iris still, Approximate Download Size: 3.9 GB

[License Agreement](#)

This data set contains iris images of subjects without contact lenses, with soft contact lenses, and with cosmetic contact lenses, acquired using an LG4000 and an IrisGuard AD100 iris sensor. The data set contains 4,200 TIFF files from the LG4000 sensor, 900 TIFF images from the AD100 sensor, and four metadata files describing the images. For a more thorough description, please see the [README](#) document. This data set corresponds to that in: Doyle, J.S; Bowyer, K.W.; Flynn, P.J., "Variation in accuracy of textured contact lens detection based on sensor and lens pattern," Biometrics: Theory, Applications and Systems (BTAS), 2013 IEEE Sixth International Conference on, vol.,no.,pp1,7, Sept. 29 2013-Oct.2 2013. To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**

The Gender from Iris Dataset (ND-GFI)

Data type: IR Iris Still, Approximate Download Size: 1 GB

[License Agreement](#)

This is a set of iris images acquired using an LG 4000 sensor. It is divided into left and right iris images, and it includes the gender of each subject. In the basic part of the dataset there is one image per left and right iris of each of 750 males and 750 females, for 3000 total images. An additional part of the dataset, for a different set of subjects, includes three images per iris. **Publications using this database must cite the paper listed in the license agreement.**

The Notre Dame LivDet-Iris 2017 Subset

Data type: IR Iris Still image, Approximate Download Size: 1.5 GB

[License Agreement](#)

This is a full set of iris images, with and without textured contact lenses, used in the LivDet-Iris 2017 competition (<http://iris2017.livdet.org>). It is built with samples taken from the Notre Dame Contact Lens Detection 2015 (NDCLD15). The training subset consists of 600 images of authentic irises (with no contacts, either soft or cosmetic) and 600 images of textured contact lenses manufactured by Ciba, UCL and ClearLab. The testing subset is split into "known spoofs" and "unknown spoofs". The "known spoofs" dataset includes 900 images of textured contact lenses produced by Ciba, UCL and ClearLab (as in the training set) and 900 images of authentic irises. The unknown spoofs dataset includes 900 images of textured contact lenses produced by Cooper and J&J (i.e., not represented in the training set) and 900 images of authentic irises. All images were acquired using either an IrisAccess LG4000 or an IrisGuard AD100 sensor. To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**

ND-Collection B

Data Type: Face Still, Approximate Download Size: 57.5 GB

[License Agreement](#)

33,287 visible-light frontal face images captured from 487 human subjects from 2002 through 2004. Each subject was photographed with a high-resolution digital camera (1600 x 1200 or 2272 x 1704) under different lighting and expression conditions. Many subjects were photographed every week for 10 weeks in the Spring of 2002, 12 weeks in the fall of 2002, and 15 weeks in the Spring of 2003. The

[Back to Top](#)

10 weeks in the Spring of 2002, 13 weeks in the fall of 2002 and 15 weeks in the spring of 2003. The number of images per subject ranges from 4 to 227 with an average of 68. Hence, this database

provides a significant amount of "repeat data" to assess performance of face recognition systems with respect to time elapsed since enrollment.

ND-Collection D



Data Type: 3D + 2D Face Images, Approximate Download Size: 2.5 GB

[License Agreement](#)

953 3D (and corresponding 2D) frontal face images from 277 human subjects captured in 2003. These images were acquired with a Minolta Vivid 900 3D range scanner.

ND Iris Contact Lenses 2010

Data Type: IR Iris Still, Approximate Download Size: 7 GB

[License Agreement](#)

This is a data set of iris images that was used in a study of the effects of wearing contact lenses on the performance of iris recognition: "Degradation of Iris Recognition Performance Due to Non-Cosmetic Prescription Contact Lenses", Sarah E. Baker, Amanda Hentz, Kevin W. Bowyer, and Patrick J. Flynn, Computer Vision and Image Understanding 114 (9), 1030-1044, September 2010. To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**

ND-TWINS-2009-2010

Data Type: Face Still, Approximate Download Size: 250 GB

[License Agreement](#)

This data set contains 24,050 color photographs of the faces of 435 attendees at the Twins Days Festivals in Twinsburg, Ohio in 2009 and 2010. All images were captured by Nikon D90 SLR cameras. Images were captured under natural light in "indoor" and "outdoor" configurations ("indoor" was a tent). Facial yaw varied from -90 to +90 degrees in steps of 45 degrees (zero degrees was frontal). To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**

ND-Collection X1

Data Type: IR + Visible Face Images, Approximate Download Size: 3 GB

[License Agreement](#)

2292 IR frontal face images and 2292 visible frontal face images from 82 human subjects captured from 2002-2004.

Multiple Biometric Grand Challenge (MBGC) Version 2 Data Collection

Data Type: IR Face and Iris Video, IR Iris Video, Visible Face Images and Video , Approximate Download Size: 110 GB (+UTD data: 36 GB)

[MBGC License Agreement](#), [MBGC UTD License Agreement](#), [MBGC UTD Permission](#)

Information about the MBGC program maybe found [here](#). The MBGC v2 and MBGC v1 data sets are separately licensed; MBGC v1 licensees must complete a new license for MBGC v.2. Please be sure to complete all three required forms to receive the full MBGC 2.0 data collection. To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**

UTD Data Collection

Data Type: Visible Face Video , Approximate Download Size: 36 GB

[UTD License Agreement](#), [UTD Permission](#)

Notre Dame distributes a subset of the Database of Moving Faces and People data set, assembled by A.J. O'Toole and H. Abdi at the University of Texas at Dallas. The subset contains between 1 and 9 videos of 297 unique human subjects, with a total of 1019 videos and a data set size of 36GB. **To obtain this data set, you must agree to, and your institution must execute, both the data license agreement and the permission form.**

[Back to Top](#)

ND-Collection E

Data Type: Visible Light Ear, Approximate Download Size: 487 MB

[License Agreement](#)

464 visible light profile (ear) images from 114 human subjects captured in 2002.



ND-Collection F

Approximate Download Size: 2.5 GB

[License Agreement](#)

942 3D (and corresponding 2D) profile (ear) images from 302 human subjects captured in 2003 and 2004.

The Notre Dame Contact Lense Dataset 2015(NDCLD15)

Data type: IR Iris Still, Approximate Download Size: 2.7 GB

[License Agreement](#)

As detailed in Robust Detection of Textured Contact Lenses in Iris Recognition Using BSIF, James S. Doyle and Kevin W. Bowyer, IEEE Access, Volume 3, 2015. Digital Object Identifier 10.1109/ACCESS.2015.2477470, this database of 7300 images was constructed to evaluate contact lens detection under various experimental scenarios. The main dataset is composed of 6000 images for model training and 1200 images for model evaluation. Images were acquired using either an IrisAccess LG4000 or an IrisGuard AD100 sensor; both sensors are equally represented. The dataset is composed of images from one of three equally-represented classes: No Lens, Soft Lens, and Textured Lens.

IJCB 2017 Challenge

Data type: Face Still image, Approximate Download Size: 200 GB

[License Agreement](#)

To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**

ND-Collection G

Data Type: 3D + 2D Ear Images, Approximate Download Size: 2 GB

[License Agreement](#)

738 3D (and corresponding 2D) profile (ear) images from 235 human subjects captured between 2003 and 2005.

ND-Iris-Template-Aging-2008-2010

Data Type: IR Iris, Approximate Download Size: 4 GB

[License Agreement](#)

This data set contains sequences of iris images of different persons, acquired using an LG4000 iris sensor. Images are from Spring 2008, Spring 2009, and Spring 2010. This allows two different one-year template aging studies, 2008-2009 and 2009-2010, and one two-year template aging study, 2008-2010. The data set contains 11,776 TIFF files. It is used in the paper: Analysis of Template Aging in Iris Biometrics, Samuel P. Fenker and Kevin W. Bowyer, IEEE Computer Society Biometrics Workshop, June 2012. To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**

Multiple Biometric Grand Challenge (MBGC) version 1 data collection

Data Type: IR Face and Iris Video, IR Iris Video, Visible Face Images and Video, Approximate Download Size: N/A

[License Agreement](#)

Information about the MBGC program may be found [here](#). To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**

[Back to Top](#)

ND-TimeLapseIris-2012

Data type: IR Iris still, Approximate Download Size: 2.2 GB

[License Agreement](#)

This data set contains 6797 images collected from 23 subjects (46 different irises) between January 2004 and October 2008. It corresponds to the data set used in a chapter in the book: Template Aging in Iris Biometrics: Evidence of Increased False Reject Rate in ICE 2006, Sarah Baker, Kevin W. Bowyer, Patrick K. Flynn and P. Johathon Phillips, in Handbook of Iris Recognition, Mark Burge and Kevin W. Bowyer, editors, Springer, 2012. to demonstrate the effects of elapsed time between probe and gallery image acquisition on iris recognition system performance. To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**



ND-Collection C

Data Type: LWIR Face Still, Approximate Download Size: 360 MB

[License Agreement](#)

2,492 LWIR frontal face images from 241 human subjects captured in 2002. All images are 320 x 240 and were captured by a Merlin-Uncooled camera purchased from Indigo Systems in 2001.

ND-Collection H

Data Type: 3D + 2D Hand Images, Approximate Download Size: 14.5 GB

[License Agreement](#)

1191 3D (and corresponding 2D) images of the back (non-palm) portion of 223 different human hands captured between 2003 and 2005.

SN-Flip Crowd Video Data Set

Data type: Group Video, Approximate Download Size: 2.1 GB

[License Agreement](#)

Comprising 190 subjects recorded in 28 crowd videos over a two year period, SN-Flip captures variations in illumination, facial expression, scale, focus, and pose. The videos were recorded with point-and-shoot camcorders from the Cisco Flip family of products, so the image quality is representative of typical web videos. Ground truth information for subject identities and social groups is included to facilitate future research in vision-driven social network analysis. To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**

ND-CrossSensor-Iris-2012 Data Set

Data type: IR Iris still, Approximate Download Size: 83.5 GB

[License Agreement](#)

This data set was initially released for the Cross Sensor Iris Recognition Challenge associated with the BTAS 2012 conference. This dataset consists of 27 sessions of data with 676 unique subjects. An average session contains 160 unique subjects which have multiple images from both the LG2200 and LG4000 iris sensors. There are 29,939 images from the LG4000 and 117,503 images from the LG2200. Every subject occurs in at least two sessions across the entire data set. This data set spans three years, 2008 to 2010. The initial images are taken from both sensors and are 640 by 480. There are additional images included in this data set, known as the modified LG2200 images. The original images have been stretched vertically by 5% to compensate for the non-unit aspect ratio of the digitizer used in the LG2200 computer-hosted runtime acquisition system (this elongation was suggested by Imad Malhas of IrisGuard Inc. in 2009). Hence these additional images are of size 640 by 504. To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**

ND-QO-Flip Crowd Video Data Set

Data Type: Group Video, Approximate Download Size: 260 MB

[License Agreement](#)

The database contains 14 crowd videos of 90 subjects, five of whom appear in multiple videos and 85 of whom appear in one video. These videos were acquired between November 2009 and May 2010. To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this database must cite the paper listed in the license agreement.**

[Back to Top](#)

VBOLO Dataset

[Dataset Description](#)

Data Type: Video

Approximate Download Size: 3.3 GB

[License Agreement](#)

The VBOLO dataset was collected in several sessions, at various checkpoints within public transportation facilities such as tunnels, bridges, and hallways. These capture environments include different camera mount heights and depression angles, illuminations, backgrounds, resolutions, pedestrian poses, and distractors. This dataset provides a good scenario for the facial ReID problem. This dataset uses a small set of known individuals - "actors", who move in and out of the surveillance cameras' fields of view, together with the unknown persons denoted as "distractors". The "actors" change clothing randomly between each "appearance" in a camera's field of view.

Compared to a typical body-based ReID dataset, which has only a few images for each subject, the VBOLO dataset has a large number of annotations for each subject from consecutive video frames, which mimic a real scenario for surveillance tracking and detection. This is significantly challenging for matching, because: 1) Faces change size significantly e.g., from 12x12 to 150x150 and exhibit significant pose variations as well. 2) The cameras supplying the probe and gallery images may have different resolutions and points of view.



UG² Challenge Dataset

[Dataset](#)

Advances in image restoration and enhancement techniques have led to discussion about how such algorithms can be applied as a pre-processing step to improve automatic visual recognition. In principle, techniques like deblurring and super-resolution should yield improvements by de-emphasizing noise and increasing signal in an input image. But the historically divergent goals of computational photography and visual recognition communities have created a significant need for more work in this direction. To facilitate new research, we introduce a new benchmark dataset called UG², which contains three difficult real-world scenarios: uncontrolled videos taken by UAVs and manned gliders, as well as controlled videos taken on the ground.

Forensic Facial Examiner Study Data Set

Data type: Face Still image, Approximate Download Size: 247 MB

[License Agreement](#)

Images used in the experiments in "Face Recognition Accuracy of Forensic Examiners, Superrecognizers, and Algorithms," Proceedings of the National Academy of Sciences, 2018 (load paper from <https://doi.org/10.1073/pnas.1721355115>). To obtain this data set, retrieve the license agreement and follow instructions above. **Publications using this data set must cite the paper listed in the license agreement.**

FACE Features Set

Data type: feature patterns, Approximate Download Size: 192 KB

[Download](#)

The FACE Features Set comprises feature patterns for imagery that is amenable to human-assisted face clustering. The features were computed for faces observed in blurry point-and-shoot videos, images of women seen before and after the application of makeup, and photographs of twins. **Please follow the instructions in the README file regarding citation.**

Notre Dame Synthetic Face Dataset (WACV 2019)

Data Type: Synthetic Face Images, 3D Head Models

Approximate Download Size: 211 GB

[License Agreement](#)

The dataset contains two types of data:

1. A set of 3D head models (.abs files) and their corresponding 2D RGB registration image (.ppm files), obtained using a Konica-Minolta 'Vivid 910' 3D scanner, of real identities (subjects), either Male or Female in gender, and Caucasian or Asian in ethnicity.
2. A set of RGB face images, masked faces without context and background 800x600 in size, of fully synthetic subjects (identities) that do not exist in reality. The synthetic identities are generated by consistent sampling of facial parts from face images of different real identities, sampled from, either Male or Female in gender, and Caucasian or Asian in ethnicity.

Since all the identities in this dataset are synthetic, i.e. they do not exist, they can be used freely without any privacy concerns. These synthetic face images were generated using Python and OpenGL, with minimal training, and can be used as – (1) supplemental training data to train CNNs, (2) additional distractor face images in the gallery for face verification experiments.

Website developed by [Richard Stefanik](#)

[Copyright © 2018](#)

[University of Notre Dame](#)

Computer Vision Research Lab

307 Stinson-Remick Hall, Notre Dame, Indiana 46656

[Accessibility Information](#)



UNIVERSITY OF
NOTRE DAME

College of Engineering

