

Omnigarde Excels in NIST Face Recognition Vendor 1:1 Verification Test with New AI Software

Omnigarde's new AI software has achieved a top-3 ranking among US-based companies and a top-15 ranking globally in the NIST FRVT 1:1 benchmark.

MISSION VIEJO, CA, UNITED STATES, July 10, 2024 /EINPresswire.com/ -- [Omnigarde](#) Excels in NIST Face Recognition Vendor 1:1 Verification Test with New AI Software Omnigarde-004

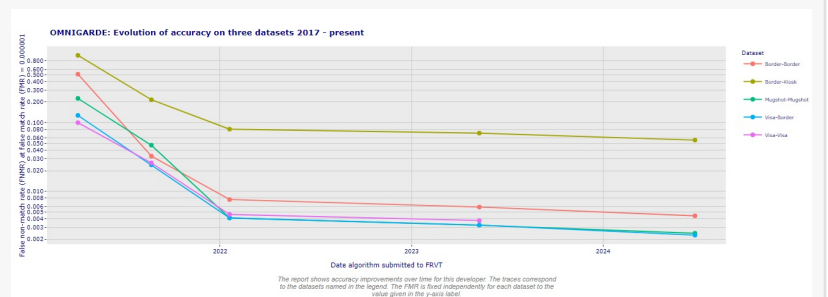
Omnigarde, a leading US-based technology company, is thrilled to announce the exceptional performance of its latest AI-powered 1:1 face recognition software, Omnigarde-004, in the National Institute of Standards and Technology (NIST) Face Recognition Vendor Test (FRVT): 1:1 verification test.

Omnigarde-004 has surpassed all expectations, demonstrating significant advancements over its predecessors and maintaining top-tier accuracy in the ongoing [NIST FRVT 1:1](#) verification test. The software has achieved a remarkable top-3 ranking among US-based companies and an impressive top-15 ranking globally. Omnigarde-004 excelled in this NIST FRVT 1:1 verification test which consisted of six

		FALSE-NON-MATCH RATE (FNMR)						
		Constrained, Cooperative					Unconstrained, Non-Coop	
Algorithm	Gallery	YISA	MUGSHOT	MUGSHOT	YISA	YISA Year23	BORDER	BORDER
Probe		YISA	MUGSHOT	MUGSHOT AT 1/2 YSA	BORDER	BORDER	BORDER	KIOSK
Date		FMR = 0.000001	= 0.00001	= 0.00001	= 0.00001	A = 0.000001	= 0.000001	= 0.00001
asiamartvisional-001	2024-05-21	-	0.0021 ⁽¹⁾	0.0021 ⁽¹⁾	0.0015 ⁽¹⁾	0.0045 ⁽¹⁾	0.0031 ⁽¹⁾	0.0331 ⁽¹⁾
cloudwalk-006	2022-10-20	0.0006 ⁽¹⁾	0.0023 ⁽¹⁾	0.0019 ⁽¹⁾	0.0016 ⁽¹⁾	0.0034 ⁽¹⁾	0.0032 ⁽¹⁾	0.0399 ⁽¹⁾
ecomby-000	2023-05-24	0.0006 ⁽¹⁾	0.0021 ⁽¹⁾	0.0022 ⁽¹⁾	0.0016 ⁽¹⁾	0.0063 ⁽¹⁾	0.0053 ⁽¹⁾	0.1083 ⁽¹⁾
viante-000	2023-06-09	0.0007 ⁽¹⁾	0.0026 ⁽¹⁾	0.0026 ⁽¹⁾	0.0017 ⁽¹⁾	0.0056 ⁽¹⁾	0.0033 ⁽¹⁾	0.0394 ⁽¹⁾
mevivi-002	2024-02-12	0.0008 ⁽¹⁾	0.0023 ⁽¹⁾	0.0021 ⁽¹⁾	0.0018 ⁽¹⁾	0.0043 ⁽¹⁾	0.0149 ⁽¹⁾	0.0430 ⁽¹⁾
asiamartvisional-000	2024-01-11	0.0011 ⁽¹⁾	0.0021 ⁽¹⁾	0.0022 ⁽¹⁾	0.0018 ⁽¹⁾	0.0049 ⁽¹⁾	0.0029 ⁽¹⁾	0.0381 ⁽¹⁾
verastime-002	2022-06-17	0.0022 ⁽¹⁾	0.0021 ⁽¹⁾	0.0021 ⁽¹⁾	0.0018 ⁽¹⁾	0.0062 ⁽¹⁾	0.0054 ⁽¹⁾	0.0423 ⁽¹⁾
infense-001	2023-01-11	0.0014 ⁽¹⁾	0.0021 ⁽¹⁾	0.0021 ⁽¹⁾	0.0019 ⁽¹⁾	0.0084 ⁽¹⁾	0.0029 ⁽¹⁾	0.0394 ⁽¹⁾
caranison-013	2023-03-08	0.0018 ⁽¹⁾	0.0021 ⁽¹⁾	0.0019 ⁽¹⁾	0.0019 ⁽¹⁾	0.0041 ⁽¹⁾	0.0041 ⁽¹⁾	0.0403 ⁽¹⁾
toshibe-008	2024-02-01	0.0017 ⁽¹⁾	0.0024 ⁽¹⁾	0.0022 ⁽¹⁾	0.0019 ⁽¹⁾	0.0059 ⁽¹⁾	0.0109 ⁽¹⁾	0.0441 ⁽¹⁾
desecense-001	2024-06-21	-	0.0023 ⁽¹⁾	0.0021 ⁽¹⁾	0.0021 ⁽¹⁾	0.0053 ⁽¹⁾	0.0111 ⁽¹⁾	0.0524 ⁽¹⁾
idemia-040	2023-06-30	0.0026 ⁽¹⁾	0.0022 ⁽¹⁾	0.0022 ⁽¹⁾	0.0021 ⁽¹⁾	0.0059 ⁽¹⁾	0.0042 ⁽¹⁾	0.0411 ⁽¹⁾
labase-002	2023-11-07	0.0013 ⁽¹⁾	0.0023 ⁽¹⁾	0.0023 ⁽¹⁾	0.0021 ⁽¹⁾	0.0071 ⁽¹⁾	0.0039 ⁽¹⁾	0.0412 ⁽¹⁾
sticon-004	2024-06-18	-	0.0021 ⁽¹⁾	0.0023 ⁽¹⁾	0.0021 ⁽¹⁾	0.0105 ⁽¹⁾	0.0118 ⁽¹⁾	0.1161 ⁽¹⁾
real-012	2023-10-13	0.0027 ⁽¹⁾	0.0021 ⁽¹⁾	0.0023 ⁽¹⁾	0.0021 ⁽¹⁾	0.0068 ⁽¹⁾	0.0039 ⁽¹⁾	0.0421 ⁽¹⁾
pac-017	2024-06-24	-	0.0023 ⁽¹⁾	0.0023 ⁽¹⁾	0.0021 ⁽¹⁾	0.0106 ⁽¹⁾	0.0038 ⁽¹⁾	0.0448 ⁽¹⁾
iamsunsh-002	2022-09-16	0.0027 ⁽¹⁾	0.0023 ⁽¹⁾	0.0022 ⁽¹⁾	0.0021 ⁽¹⁾	0.0079 ⁽¹⁾	0.0043 ⁽¹⁾	0.0489 ⁽¹⁾
clearview-001	2023-12-05	0.0021 ⁽¹⁾	0.0024 ⁽¹⁾	0.0023 ⁽¹⁾	0.0022 ⁽¹⁾	0.0152 ⁽¹⁾	0.0044 ⁽¹⁾	0.1203 ⁽¹⁾
omum-001	2023-12-05	0.0038 ⁽¹⁾	0.0025 ⁽¹⁾	0.0025 ⁽¹⁾	0.0022 ⁽¹⁾	0.0161 ⁽¹⁾	0.0029 ⁽¹⁾	0.0437 ⁽¹⁾
surve-cam-002	2023-09-13	0.0028 ⁽¹⁾	0.0021 ⁽¹⁾	0.0024 ⁽¹⁾	0.0022 ⁽¹⁾	0.0116 ⁽¹⁾	0.0027 ⁽¹⁾	0.2121 ⁽¹⁾
idiera-004	2022-11-14	0.0023 ⁽¹⁾	0.0021 ⁽¹⁾	0.0021 ⁽¹⁾	0.0021 ⁽¹⁾	0.0028 ⁽¹⁾	0.0021 ⁽¹⁾	0.0649 ⁽¹⁾
frubau-001	2024-05-30	-	0.0023 ⁽¹⁾	0.0023 ⁽¹⁾	0.0023 ⁽¹⁾	0.0135 ⁽¹⁾	0.0073 ⁽¹⁾	0.0454 ⁽¹⁾
omniard-001	2024-06-24	-	0.0021 ⁽¹⁾	0.0024 ⁽¹⁾	0.0023 ⁽¹⁾	0.0081 ⁽¹⁾	0.0046 ⁽¹⁾	0.0509 ⁽¹⁾
multium-004	2023-09-16	0.0021 ⁽¹⁾	0.0024 ⁽¹⁾	0.0024 ⁽¹⁾	0.0023 ⁽¹⁾	0.0079 ⁽¹⁾	0.0039 ⁽¹⁾	0.0479 ⁽¹⁾
alibera-008	2024-06-17	-	0.0026 ⁽¹⁾	0.0031 ⁽¹⁾	0.0024 ⁽¹⁾	0.0179 ⁽¹⁾	0.0099 ⁽¹⁾	0.0515 ⁽¹⁾
viduocore-003	2022-08-31	0.0164 ⁽¹⁾	0.0021 ⁽¹⁾	0.0033 ⁽¹⁾	0.0024 ⁽¹⁾	0.0130 ⁽¹⁾	0.0043 ⁽¹⁾	0.8803 ⁽¹⁾
manipion-001	2024-01-19	0.0026 ⁽¹⁾	0.0024 ⁽¹⁾	0.0024 ⁽¹⁾	0.0024 ⁽¹⁾	0.0166 ⁽¹⁾	0.3991 ⁽¹⁾	0.3021 ⁽¹⁾
neurotechnology-014	2024-02-09	0.0029 ⁽¹⁾	0.0021 ⁽¹⁾	0.0024 ⁽¹⁾	0.0024 ⁽¹⁾	0.0135 ⁽¹⁾	0.0046 ⁽¹⁾	0.0492 ⁽¹⁾
rtbc-000	2023-08-22	0.0043 ⁽¹⁾	0.0024 ⁽¹⁾	0.0032 ⁽¹⁾	0.0024 ⁽¹⁾	0.0188 ⁽¹⁾	0.3061 ⁽¹⁾	0.4943 ⁽¹⁾
armybase-003	2023-01-13	0.0029 ⁽¹⁾	0.0026 ⁽¹⁾	0.0028 ⁽¹⁾	0.0023 ⁽¹⁾	0.0119 ⁽¹⁾	0.0049 ⁽¹⁾	0.0538 ⁽¹⁾

Showing 1 to 30 of 366 entries Above table extracted from the NIST FRVT 1:1 website(Updated 2024-07-03)

The top 30 most accurate developers in the NIST FRVT 1:1 verification test as of 7/3/2024



Omnigarde new AI face recognition software reduced the average error rate by 25% compared with the last version and more than 90% when compared with 2021's first version

test scenarios related to matching mugshot-type, border-taken, and kiosk-taken images. Additionally, Omnigarde-004 reduced the average error rate by 25% (from 54% to 8%) compared to its predecessor, Omnigarde-003.

[Dr. Peter Lo](#), Founder and CEO of Omnigarde, expressed pride in the continuous enhancement of the company's face recognition technology. "Omnigarde-004's success underscores our commitment to innovation and excellence in the field of biometric identification," Dr. Lo stated. As the competition in the NIST FRVT 1:1 test intensifies, Omnigarde remains at the forefront of cutting-edge technology, driving advancements in face recognition software.



“

Omnigarde AI face recognition 1:1 software 004's success underscores our commitment to innovation and excellence in the field of biometric identification”

Dr. Peter Lo, Founder and CEO

The NIST FRVT 1:1 test comprises 6 matching scenarios: matching mugshot-type images, matching mugshot-type images that are 12 years apart, matching border-taken images with visa images, matching border-taken images with visa images with a 45-degree head yaw, matching border-taken images, and matching kiosk-taken images against border-taken images. Across these scenarios, Omnigarde-004 achieved rank 11, 22, 23, 17, 13, and 30 on the six datasets among all submitted companies. In addition, each software is rated and compared in terms of memory, feature vector size, feature extraction time, and matching time, of which Omnigarde-004 ranked 11, 22, 23,

and 17, respectively among the top 30 most accurate software submissions. Since 2017, at least 366 companies worldwide have submitted thousands of software to be tested. Thus, the competition in the FRVT 1:1 is the most intense test among all biometric public benchmarks. For detailed results and further information, please visit the NIST FRVT 1:1 web page.

Omnigarde LLC is a startup based in Southern California, with a strong focus on becoming a leader in biometric technologies through artificial intelligence (AI). The company was formed by a group of experts. Since its establishment on March 22, 2021, Omnigarde has made significant strides in developing cutting-edge biometric technologies, particularly in the areas of face, fingerprint, and voice recognition using AI. These technologies have achieved top-tier performance in renowned benchmarks such as the NIST ongoing FRVT 1:1 and 1:N, MINEX (Minutiae Interoperability Exchange) III, and PFT (Proprietary Fingerprint Template) III benchmarks. Omnigarde's ultimate objective is to become a leading biometric core technologies

provider. The company's vision is to enhance people's quality of life, to make it easier and more secure.

The Face Recognition Vendor Test (FRVT) is a set of evaluations conducted by the National Institute of Standards and Technology (NIST) to assess the performance of face recognition software submitted worldwide. These unbiased and independent evaluations aim to provide government agencies, industry, and the research community about the performance of face recognition software, empowering organizations to make informed decisions when selecting a face recognition system. These evaluations are designed to assess the performance of face recognition software under a wide range of conditions, including varying lighting conditions, poses, and image qualities. No companies have access to test images, ensuring that submitted software is not trained specifically for the test. The FRVT consists of two main types of tests: 1:1 and 1:N. The 1:1 test compares a probe face image with a pre-enrolled target face image to determine whether it belongs to the same subject. The 1:N test compares a query face image with pre-enrolled face images to calculate similarity scores. The purpose of this test is to determine whether the query face matches any of the pre-enrolled face images or not. Apart from FNMR and FMR, additional metrics evaluated include memory size (RAM), feature vector size (data representation of facial features), feature extraction time (time taken to extract facial features), and matching time (time taken to compare and match faces). These metrics provide a comprehensive assessment of the software's efficiency, accuracy, and computational requirements. Both 1:1 and 1:N tests are an ongoing benchmark, allowing software developers to continually enhance their algorithms and submit improved versions for evaluation every four months. Test results are periodically updated and published on the NIST FRVT website, ensuring transparency and providing stakeholders with up-to-date information for decision-making. The results also serve as references for vendors to improve their software, guiding them in addressing performance challenges and advancing their technology.

Peter Lo
Omnigarde LLC
peter.lo@omnigarde.com

This press release can be viewed online at: <https://www.einpresswire.com/article/726473301>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2024 Newsmatics Inc. All Right Reserved.