

DAFTAR PUSTAKA

- Ahmedt Aristizabal, D. E. (2019). *Multi-modal Analysis for the Automatic Evaluation of Epilepsy* [Queensland University of Technology]. <https://doi.org/10.5204/thesis.eprints.132537>
- Amato, G., Falchi, F., Gennaro, C., & Vairo, C. (2018). A Comparison of Face Verification with Facial Landmarks and Deep Features. *10th International Conference on Advances in Multimedia (MMEDIA)*, 1–6. <https://www.researchgate.net/publication/338048224>
- An, X., Zhu, X., Gao, Y., Xiao, Y., Zhao, Y., Feng, Z., Wu, L., Qin, B., Zhang, M., Zhang, D., & Fu, Y. (2021). Partial FC: Training 10 Million Identities on a Single Machine. *Proceedings of the IEEE/CVF International Conference on Computer Vision*, 1445–1449.
- Anbarjafari, G., Haamer, R. E., Lusi, I., Tikk, T., & Valgma, L. (2017). *3D Face Reconstruction with Region Based Best Fit Blending Using Mobile Phone for Virtual Reality Based Social Media*. <http://arxiv.org/abs/1801.01089>
- Basso, C., Vetter CurzioBasso, T., & ThomasVetter, unibasch. (2005). Statistically Motivated 3D Faces Reconstruction. *Proceedings of the 2nd International Conference on Reconstruction of Soft Facial Parts*.
- Blanz, V., & Vetter, T. (1999). A Morphable Model For The Synthesis Of 3D Faces. *Proceedings of the 26th Annual Conference on Computer Graphics and Interactive Techniques*, 187–194.
- Booth, J., Roussos, A., Ponniah, A., Dunaway, D., & Zafeiriou, S. (2018). Large Scale 3D Morphable Models. *International Journal of Computer Vision*, 126(2–4), 233–254. <https://doi.org/10.1007/s11263-017-1009-7>
- Boutros, F., Damer, N., Kirchbuchner, F., & Kuijper, A. (2022). ElasticFace: Elastic Margin Loss for Deep Face Recognition. *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 1578–1587. <https://github.com/fdbtrs/ElasticFace>
- Bulat, A., & Tzimiropoulos, G. (2017). How far are we from solving the 2D & 3D Face Alignment problem? (and a dataset of 230,000 3D facial landmarks).

- Proceedings of the IEEE International Conference on Computer Vision*, 1021–1030. www.adrianbulat.com/face-alignment/
- Cao, C., Weng, Y., Zhou, S., Tong, Y., & Zhou, K. (2013). FaceWarehouse: a 3D Facial Expression Database for Visual Computing. *IEEE Transactions on Visualization and Computer Graphics*, 20(3), 413–425.
- Chai, J.-X., Xiao, J., & Hodgins, J. (2003). Vision-based Control of 3D Facial Animation. *Symposium on Computer Animation*, 2. <http://graphics.cs.cmu.edu/projects/face-animation>
- Chinaev, N., Chigorin, A., & Laptev, I. (2018). MobileFace: 3D Face Reconstruction with Efficient CNN Regression. *Proceedings of the European Conference on Computer Vision (ECCV) Workshops*. <https://github.com/nchinaev/MobileFace>
- Csiszar, I. (1975). Divergence Geometry of Probability Distributions and Minimization Problems. *The Annals of Probability*, 3(1), 146–158. <https://doi.org/10.1214/aop/1176996454>
- Deng, J., Guo, J., Xue, N., & Zafeiriou, S. (2019). ArcFace: Additive Angular Margin Loss for Deep Face Recognition. *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 4690–4699. <https://github.com/>
- Deng, Y., Yang, J., Xu, S., Chen, D., Jia, Y., & Tong, X. (2019). Accurate 3D Face Reconstruction with Weakly-Supervised Learning: From Single Image to Image Set. *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops*. <https://github.com/>
- Dou, P., & Kakadiaris, I. A. (2018). Multi-view 3D face reconstruction with deep recurrent neural networks. *IEEE International Joint Conference on Biometrics, IJCB 2017, 2018-January*, 483–492. <https://doi.org/10.1109/BTAS.2017.8272733>
- Dou, P., Shah, S. K., & Kakadiaris, I. A. (2017). End-to-end 3D face reconstruction with deep neural networks. *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 5908–5917.

- Egger, B., Smith, W. A. P., Tewari, A., Wuhrer, S., Zollhoefer, M., Beeler, T., Bernard, F., Bolkart, T., Kortylewski, A., Romdhani, S., Theobalt, C., Blanz, V., & Vetter, T. (2020). 3D Morphable Face Models—Past, Present, and Future. *ACM Transactions on Graphics*, 39(5). <https://doi.org/10.1145/3395208>
- Erik Learned-Miller, Qifeng Lu, Angela Paisley, Peter Trainer, Volker Blanz, Katrin Dedden, & Ralph Miller. (2006). Detecting Acromegaly: Screening for Disease with a Morphable Model. *Medical Image Computing and Computer-Assisted Intervention – MICCAI 2006*, 4191. <https://doi.org/10.1007/11866763>
- Feng, M., Zulqarnain Gilani, S., Wang, Y., & Mian, A. (2018). 3D Face Reconstruction from Light Field Images: A Model-free Approach. *Proceedings of the European Conference on Computer Vision (ECCV)*, 501–518.
- Feng, Y., Wu Fan, Shao Xiaohu, Wang Yanfeng, & Zhou Xi. (2018). Joint 3D Face Reconstruction and Dense Alignment with Position Map Regression Network. *Proceedings of the European Conference on Computer Vision (ECCV)*, 534–551. <https://github.com/YadiraF/PRNet>.
- Feng, Z.-H., Huber, P., Kittler, J., Hancock, P. J., Wu, X.-J., Zhao, Q., Koppen, P., & Rätzsch, M. (2018). Evaluation of Dense 3D Reconstruction from 2D Face Images in the Wild. *2018 13th IEEE International Conference on Automatic Face & Gesture Recognition (FG 2018)*, 780–786. <http://arxiv.org/abs/1803.05536>
- Fu, H., Bian, S., Chaudhry, E., Iglesias, A., You, L., & Zhang, J. J. (2021). State-of-the-art in 3D face reconstruction from a single RGB image. *International Conference on Computational Science*, 31–44.
- Gecer, B., Ploumpis, S., Kotsia, I., & Zafeiriou, S. (2019). GANFIT: Generative Adversarial Network Fitting for High Fidelity 3D Face Reconstruction. *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 1155–1164. <https://github.com/barisgecer/ganfit>
- Genova, K., Cole, F., Maschinot, A., Sarna, A., Vlasic, D., & Freeman, W. T. (2018). Unsupervised Training for 3D Morphable Model Regression.

- Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 8377–8386.
- Gerig, T., Morel-Forster, A., Blumer, C., Egger, B., Lüthi, M., Schönborn, S., & Vetter, T. (2017). Morphable Face Models - An Open Framework. *2018 13th IEEE International Conference on Automatic Face & Gesture Recognition*, 75–82. <http://arxiv.org/abs/1709.08398>
- Gross, R., Matthews, I., Cohn, J., Kanade, T., & Baker, S. (2010). Multi-PIE. *Image and Vision Computing*, 28(5), 807–813. <https://doi.org/10.1016/j.imavis.2009.08.002>
- Guo, Y., Zhang, J., Cai, J., Jiang, B., & Zheng, J. (2019). CNN-Based Real-Time Dense Face Reconstruction with Inverse-Rendered Photo-Realistic Face Images. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 41(6), 1294–1307. <https://doi.org/10.1109/TPAMI.2018.2837742>
- Guo, Y., Zhang, L., Hu, Y., He, X., & Gao, J. (2016). MS-Celeb-1M: A Dataset and Benchmark for Large-Scale Face Recognition. *Computer Vision–ECCV 2016: 14th European Conference*, 87–102. <http://arxiv.org/abs/1607.08221>
- Hammond, P., Hutton, T. J., Allanson, J. E., Campbell, L. E., Hennekam, R. C. M., Holden, S., Patton, M. A., Shaw, A., Temple, I. K., Trotter, M., Murphy, K. C., & Winter, R. M. (2004). 3D analysis of facial morphology. *American Journal of Medical Genetics*, 126A(4), 339–348. <https://doi.org/10.1002/ajmg.a.20665>
- He, K., Zhang, X., Ren, S., & Sun, J. (2016). Deep Residual Learning for Image Recognition. *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 770–778. <http://image-net.org/challenges/LSVRC/2015/>
- Huber, P., Hu, G., Tena, R., Mortazavian, P., Koppen, W. P., Christmas, W., Rätsch, M., & Kittler, J. (2016). A Multiresolution 3D Morphable Face Model and Fitting Framework. *Proceedings of the 11th International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications*. <http://www.3dmd.com/>
- Jabberi, M., Wali, A., Chaudhuri, B. B., & Alimi, A. M. (2023). 68 landmarks are efficient for 3D face alignment: what about more?: 3D face alignment

- method applied to face recognition. *Multimedia Tools and Applications*, 1–35. <https://doi.org/10.1007/s11042-023-14770-x>
- Jackson, A. S., Bulat, A., Argyriou, V., & Tzimiropoulos, G. (2017). Large Pose 3D Face Reconstruction from a Single Image via Direct Volumetric CNN Regression. *Proceedings of the IEEE International Conference on Computer Vision*, 1031–1039. <http://aaronsplace.co.uk>
- Kemelmacher-Shlizerman, I., & Basri, R. (2011). 3D face reconstruction from a single image using a single reference face shape. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 33(2), 394–405. <https://doi.org/10.1109/TPAMI.2010.63>
- Kemelmacher-Shlizerman, I., & Seitz, S. M. (2011). Face reconstruction in the wild. *Proceedings of the IEEE International Conference on Computer Vision*, 1746–1753. <https://doi.org/10.1109/ICCV.2011.6126439>
- Kim, H., Zollhöfer, M., Tewari, A., Thies, J., Richardt, C., & Theobalt, C. (2018). InverseFaceNet: Deep Monocular Inverse Face Rendering. *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 4625–4634.
- Kingma, D. P., & Ba, J. (2015, December 22). Adam: A Method for Stochastic Optimization. *International Conference for Learning Rep-Resentations (ICLR)*. <http://arxiv.org/abs/1412.6980>
- Kullback, S., & Leibler, R. A. (1951). On Information and Sufficiency. *The Annals of Mathematical Statistics*, 22(1), 79–86. <https://doi.org/10.1214/aoms/1177729694>
- Lauze, F., Quéau, Y., Sabzevari, R., Shi, B., Inose, K., Matsushita, Y., Tan, P., Yeung, S.-K., & Ikeuchi, K. (2014). Photometric Stereo using Internet Images. *2014 2nd International Conference on 3D Vision*, 361–368.
- Li, C., Morel-Forster, A., Vetter, T., Egger, B., & Kortylewski, A. (2023). Robust Model-based Face Reconstruction through Weakly-Supervised Outlier Segmentation. *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 372–381.

- Li, H., Trutoiu, L., Olszewski, K., Wei, L., Trutna, T., Hsieh, P.-L., Nicholls, A., & Ma, C. (2015). Facial Performance Sensing Head-Mounted Display. *ACM Transactions on Graphics (ToG)*, 34(4), 1–9.
- Lin, J., Yuan, Y., Shao, T., & Zhou, K. (2020). Towards High-Fidelity 3D Face Reconstruction from In-the-Wild Images Using Graph Convolutional Networks. *Proceedings of the Ieee/Cvf Conference on Computer Vision and Pattern Recognition*, 5891–5900.
- Liu, W., Wen, Y., Yu, Z., Li, M., Raj, B., & Song, L. (2017). SphereFace: Deep Hypersphere Embedding for Face Recognition. *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 212–220.
- Lombardi, S., Saragih, J., Simon, T., & Sheikh, Y. (2018). Deep appearance models for face rendering. *ACM Transactions on Graphics*, 37(4). <https://doi.org/10.1145/3197517.3201401>
- Loper, M. M., & Black, M. J. (2014). OpenDR: An approximate differentiable renderer. *Computer Vision–ECCV 2014: 13th European Conference, 8695 LNCS(PART 7)*, 154–169. https://doi.org/10.1007/978-3-319-10584-0_11
- Mueller, A. A., Paysan, P., Schumacher, R., Zeilhofer, H.-F., Berg-Boerner, B.-I., Maurer, J., Vetter, T., Schkommodau, E., Juergens, P., & Schwenzer-Zimmerer, K. (2011). Missing facial parts computed by a morphable model and transferred directly to a polyamide laser-sintered prosthesis: an innovation study. *British Journal of Oral and Maxillofacial Surgery*, 49(8), e67–e71. <https://doi.org/10.1016/j.bjoms.2011.02.007>
- Patow, G., & Pueyo, X. (2003). A Survey of Inverse Rendering Problems. *Computer Graphics Forum*, 22(4), 663–687. <https://doi.org/10.1111/j.1467-8659.2003.00716.x>
- Paysan, P., Knothe, R., Amberg, B., Romdhani, S., & Vetter, T. (2009). A 3D Face Model for Pose and Illumination Invariant Face Recognition. *2009 Sixth IEEE International Conference on Advanced Video and Signal Based Surveillance*, 296–301. <http://faces.cs.unibas.ch/>
- Ravi, N., Reizenstein, J., Novotny, D., Gordon, T., Lo, W.-Y., Johnson, J., & Gkioxari, G. (2020). *Accelerating 3D Deep Learning with PyTorch3D*. <http://arxiv.org/abs/2007.08501>

- Richardson, E., Sela, M., & Kimmel, R. (2016). 3D Face Reconstruction by Learning from Synthetic Data. *2016 Fourth International Conference on 3D Vision (3DV)*, 460–469. <http://arxiv.org/abs/1609.04387>
- Richardson, E., Sela, M., Or-El, R., & Kimmel, R. (2017). Learning Detailed Face Reconstruction from a Single Image. *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 1259–1268.
- Roth, J., Tong, Y., & Liu, X. (2015). Unconstrained 3D Face Reconstruction. *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2606–2615.
- Roth, J., Tong, Y., & Liu, X. (2016). Adaptive 3D Face Reconstruction from Unconstrained Photo Collections. *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 4197–4206.
- Sanyal, S., Bolkart, T., Feng, H., & Black, M. J. (2019). Learning to Regress 3D Face Shape and Expression from an Image without 3D Supervision. *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 7763–7772. <http://ringnet.is.tuebingen.mpg.de>.
- Schroff, F., & Philbin, J. (2015). FaceNet: A Unified Embedding for Face Recognition and Clustering. *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 815–823.
- Sengupta, S., Kanazawa, A., Castillo, C. D., & Jacobs, D. W. (2018). SfSNet: Learning Shape, Reflectance and Illuminance of Faces “in the wild.” *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 6296–6305. <https://senguptaumd.github.io/SfSNet/>.
- Shang, J., Shen, T., Li, S., Zhou, L., Zhen, M., Fang, T., & Quan, L. (2020). Self-Supervised Monocular 3D Face Reconstruction by Occlusion-Aware Multi-view Geometry Consistency. *European Conference on Computer Vision*, 53–70. <http://arxiv.org/abs/2007.12494>
- Sharma, S., & Kumar, V. (2022). 3D Face Reconstruction in Deep Learning Era: A Survey. In *Archives of Computational Methods in Engineering* (Vol. 29, Issue 5, pp. 3475–3507). Springer Science and Business Media B.V. <https://doi.org/10.1007/s11831-021-09705-4>

- Snape, P., Panagakis, Y., & Zafeiriou, S. (2015). Automatic Construction Of Robust Spherical Harmonic Subspaces. *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 91–100.
- Suttie, M., Foroud, T., Wetherill, L., Jacobson, J. L., Molteno, C. D., Meintjes, E. M., Hoyme, H. E., Khaole, N., Robinson, L. K., Riley, E. P., Jacobson, S. W., & Hammond, P. (2013). Facial Dysmorphism Across the Fetal Alcohol Spectrum. *Pediatrics*, *131*(3), e779–e788. <https://doi.org/10.1542/peds.2012-1371>
- Tewari, A., Zollhöfer, M., Garrido, P., Bernard, F., Kim, H., Pérez, P., & Theobalt, C. (2018). Self-supervised Multi-level Face Model Learning for Monocular Reconstruction at over 250 Hz. *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 2549–2559.
- Tewari, A., Zollhöfer, M., Kim, H., Garrido, P., Bernard, F., Pérez, P., & Theobalt, C. (2017). MoFA: Model-based Deep Convolutional Face Autoencoder for Unsupervised Monocular Reconstruction. *Proceedings of the IEEE International Conference on Computer Vision Workshops*, 1274–1283.
- Thies, J., Zollhöfer, M., Stamminger, M., Theobalt, C., & Nießner, M. (2016). FaceVR: Real-Time Facial Reenactment and Eye Gaze Control in Virtual Reality. *ArXiv Preprint ArXiv:1610.03151*. <http://arxiv.org/abs/1610.03151>
- Tran, L., & Liu, X. (2018). Nonlinear 3D Face Morphable Model. *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 7346–7355. <http://cvlab.cse.msu.edu/project-nonlinear-3dmm.html>
- Tu, L., Porras, A. R., Boyle, A., & Linguraru, M. G. (2018). *Analysis of 3D Facial Dysmorphology in Genetic Syndromes from Unconstrained 2D Photographs*. 347–355. https://doi.org/10.1007/978-3-030-00928-1_40
- Tuan Tran, A., H., T., M. I., & Medioni, G. (2017). Regressing Robust and Discriminative 3D Morphable Models with a very Deep Neural Network. *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 5163–5172. www.openu.ac.il/home/hassner/projects/CNN3DMM

- Tzimiropoulos, G., & Pantic, M. (2014). Gauss-Newton Deformable Part Models for Face Alignment in-the-Wild. *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 1851–1858. <http://ibug.doc.ic.ac>.
- Wang, H., Wang, Y., Zhou, Z., Ji, X., Gong, D., Zhou, J., Li, Z., & Liu, W. (2018). CosFace: Large Margin Cosine Loss for Deep Face Recognition. *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*, 5265–5274.
- Wood, E., Baltrušaitis, T., Hewitt, C., Johnson, M., Shen, J., Milosavljević, N., Wilde, D., Garbin, S., Sharp, T., Stojiljković, I., Cashman, T., & Valentin, J. (2022). 3D Face Reconstruction with Dense Landmarks. *European Conference on Computer Vision*, 160–177. https://doi.org/10.1007/978-3-031-19778-9_10
- Wu, L., Ganesh, A., Shi, B., Matsushita, Y., Wang, Y., & Ma, Y. (2010). Robust Photometric Stereo via Low-Rank Matrix Completion and Recovery. *Asian Conference on Computer Vision*, 703–717.
- You, X., Wang, Y., & Zhao, X. (2023). A Lightweight Monocular 3D Face Reconstruction Method Based on Improved 3D Morphing Models. *Sensors*, 23(15), 6713. <https://doi.org/10.3390/s23156713>
- Zhang, J., Lin, L., Zhu, J., & Hoi, S. C. H. (2021). *Weakly-Supervised Multi-Face 3D Reconstruction*. <http://arxiv.org/abs/2101.02000>
- Zhang Kaipeng, Zhang Zhanpeng, & Li Zhifeng. (2016). Joint Face Detection and Alignment using Multi-task Cascaded Convolutional Networks. *IEEE Signal Processing Letters*, 23(10), 1499–1503.
- Zhao, W., Yang, C., Ye, J., Yan, Y., Yang, X., & Huang, K. (2022). *From 2D Images to 3D Model: Weakly Supervised Multi-View Face Reconstruction with Deep Fusion*. <http://arxiv.org/abs/2204.03842>

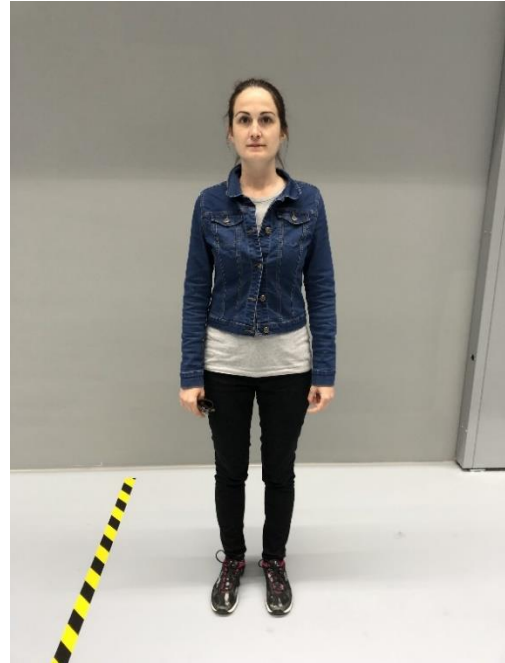
LAMPIRAN

Lampiran 1 Data identitas 2D wajah yang direkonstruksi menjadi 3D wajah

Identitas 1



Identitas 2



Identitas 3



Identitas 4



Identitas 5



Identitas 6



Identitas 7



Identitas 8



Identitas 9



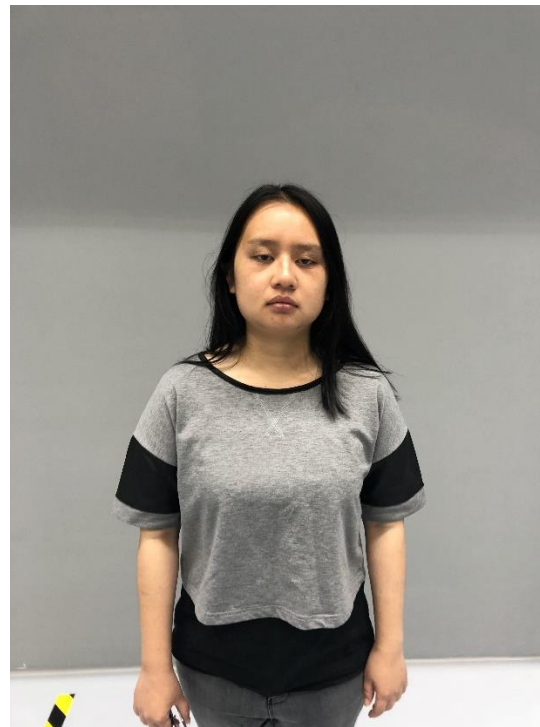
Identitas 10



Identitas 11



Identitas 12



Identitas 13



Identitas 14



Identitas 15



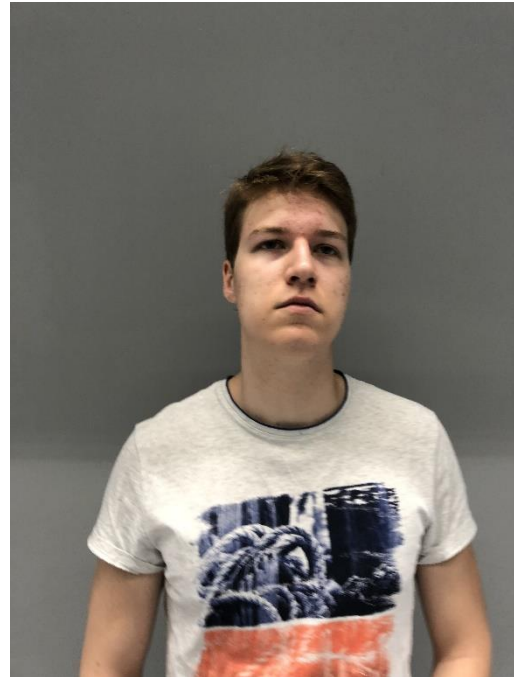
Identitas 16



Identitas 17



Identitas 18



Identitas 19



Identitas 20



