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DAFTAR PUSTAKA

[1] R. T. Azuma, "An overview of augmented reality," in *ACM SIGGRAPH Course Notes*, 1997.

[2] F. N. Addin, A. Fauzi, A. K. Adas, G. A. Azra, R. Febranka, and M. F. Benardi, "Analisa penggunaan augmented reality di ikea," mailto:fahmi.addin@binus.ac.id, Bekasi, Indonesia, 2023, unpublished manuscript or institutional report.

[3] V. W. Febrihartanti, B. S. Hantono, and A. Nasikun, "Analisis pengaruh faktor marker terhadap proses deteksi image-based tracking augmented reality," Yogyakarta, 2024.

[4] R. Harryson, B. S. Hantono, and A. Nasikun, "Analisis performa aplikasi augmented reality untuk kartu interaktif berbasis web dan native android app," Yogyakarta, 2024.

[5] R. Jadhav, "Performance evaluation of web browsers," *International Journal of Computer Science and Applications*, vol. 2, p. 180, jan 2013.

[6] J. Nejati and A. Balasubramanian, "An in-depth study of mobile browser performance," in *Proceedings of the 25th International Conference on World Wide Web*, apr 2016, pp. 1305–1315.

[7] A. Geris, B. Çukurbaşı, M. Kılınç, and O. Teke, "Balancing performance and comfort in virtual reality: A study of fps, latency, and batch values," *Software: Practice and Experience*, vol. 54, pp. 2336–2348, 06 2024.

[8] T. A. Alkasmy, R. K. Qarout, and K. Laabidi, "Evaluation of cpu and ram performance for markerless augmented reality," *International Journal of Computer Science and Network Security*, vol. 23, no. 10, pp. 44–48, 2023.

[9] F. Zamrody and A. I. Nurhidayat, "Penerapan markerless augmented reality berbasis web (webar) pada aplikasi web e-commerce furnitur," *Jurnal Manajemen Informatika*, pp. 1–14, 2013, journal name assumed from context.

[10] S. Sridhar and S. Sanagavarapu, "Instant tracking-based approach for interior décor planning with markerless ar," in *2020 Zooming Innovation in Consumer Technologies Conference (ZINC)*, 2020, pp. 103–108.

[11] N. R R, R. M, R. B. S, S. Sultana, and N. M. Nadig, "Markerless augmented reality application for interior designing," in *2022 Second International Conference on Advanced Technologies in Intelligent Control, Environment, Computing & Communication Engineering (ICATIECE)*, 2022, pp. 1–5.

[12] V. Miyanti, A. Muhidin, and D. Ardiatma, "Implementasi metode markerless augmented reality sebagai media promosi home furnishing berbasis android: Implementation of markerless augmented reality method as an android-based home furnishing promotion media," *MALCOM: Indonesian Journal of Machine Learning and Computer Science*, vol. 4, no. 1, pp. 71–77, dec 2023. [Online]. Available: https://journal.irpi.or.id/index.php/malcom/article/view/1019

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[13] H. Koli, Y. Jagdale, P. Dudhmal, and B. Shaikh, "Roomifyar: Rendering multiple models to design a room," in *2024 3rd International Conference on Applied Artificial Intelligence and Computing (ICAAIC)*, 2024, pp. 1251–1257.

[14] A.-M. Boutsi, C. Ioannidis, and S. Verykokou, "Multi-resolution 3d rendering for high-performance web ar," *Sensors*, vol. 23, no. 15, 2023. [Online]. Available: https://www.mdpi.com/1424-8220/23/15/6885

[15] D. J. Leith, "Web browser privacy: What do browsers say when they phone home?" *IEEE Access*, vol. 9, pp. 41 615–41 627, 2021.

[16] M. Varvello and B. Livshits, "On the battery consumption of mobile browsers," *arXiv preprint arXiv:2009.03740*, aug 2020.

[17] N. Gonçalves, R. Rua, J. Cunha, R. Pereira, and J. Saraiva, "Energy efficiency of web browsers in the android ecosystem," *arXiv preprint arXiv:2205.11399*, may 2022.

[18] M. Kim, S. Lee, and Y. Won, "Comparative study on i/o characteristics of mobile web browsers," in *2015 IEEE 5th International Conference on Consumer Electronics - Berlin (ICCE-Berlin)*, 2015, pp. 224–227.

[19] D. Lee, W. Shim, M. Lee, S. Lee, K.-D. Jung, and S. Kwon, "Performance evaluation of ground ar anchor with webxr device api," *Applied Sciences*, vol. 11, no. 17, 2021. [Online]. Available: https://www.mdpi.com/2076-3417/11/17/7877

[20] D. Schmalstieg and T. Höllerer, *Augmented Reality: Principles and Practice*. Boston: Addison-Wesley, 2016.

[21] Y. El Filali and K. Salah-ddine, "Augmented reality types and popular use cases," *International Journal of Advanced Computer Science and Applications*, vol. 8, pp. 91–97, apr 2019.

[22] S. Dargan, S. Bansal, M. Kumar, A. Mittal, and K. Kumar, "Augmented reality: A comprehensive review," *Archives of Computational Methods in Engineering*, vol. 30, no. 2, pp. 1057–1080, mar 2023.

[23] X. Qiao, P. Ren, S. Dustdar, L. Liu, H. Ma, and J. Chen, "Web ar: A promising future for mobile augmented reality—state of the art, challenges, and insights," *Proceedings of the IEEE*, vol. 107, no. 4, pp. 651–666, 2019.

[24] B. Benligiray, S. Kalkan, and A. A. Alatan, "STag: A Stable Fiducial Marker System," *Image and Vision Computing*, vol. 89, pp. 158–169, sep 2019.

[25] M. Neges, D. Kurz, D. Stricker, A. Borrmann, and T. Vietor, "Combining Visual Natural Markers and IMU for Improved AR Based Indoor Navigation," *Advanced Engineering Informatics*, vol. 31, pp. 18–31, jan 2017.

[26] S. Siltanen, "Theory and applications of marker based augmented reality," Licentiate Thesis, Aalto University, Finland, jan 2012.

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[27] Z. L. Jiao, "Markerless registration based on natural features tracking for augmented reality," in *Proceedings of the 2013 International Conference on Advanced Computer Science and Electronics Information (ICACSEI 2013)*, ser. Advances in Intelligent Systems Research, vol. 28. Atlantis Press, 2013, pp. 198–201.

[28] K. T. H. G. Phan, "An implementation methodology for augmented reality applications," Master's thesis, University of Twente, Enschede, The Netherlands, feb 2023.

[29] T. Lee and T. Hollerer, "Multithreaded hybrid feature tracking for markerless augmented reality," *IEEE Transactions on Visualization and Computer Graphics*, vol. 15, no. 3, pp. 355–368, may 2009.

[30] D. Wagner and D. Schmalstieg, "Markerless tracking solutions for augmented reality on the web," in *Proceedings of the 6th IEEE and ACM International Symposium on Mixed and Augmented Reality*, 2007.

[31] G. Klein and D. Murray, "Parallel tracking and mapping for small ar workspaces," in *2007 6th IEEE and ACM International Symposium on Mixed and Augmented Reality*, 2007, pp. 225–234.

[32] Y. El Filali and K. Salah-ddine, "Superimposition-based augmented reality systems," in *Proceedings of the 10th International Conference on Agents and Artificial Intelligence*, jan 2018, pp. 107–110.

[33] W3C Immersive Web Community Group, "Webxr device api specification," W3C, Tech. Rep., 2020. [Online]. Available: https://www.w3.org/TR/webxr/

[34] ——, "Webxr hit test api explainer," https://immersive-web.github.io/hit-test/, accessed on 2025-06-15.

[35] Immersive Web Working Group, "Webxr hit testing: Theory and implementation," W3C, Tech. Rep., 2023.

[36] B. Danchilla, *Three.js Framework*. Apress, jan 2012, pp. 173–203.

[37] F. Anisa, F. Harahap, H. Al Khosyi, and I. Sari, "Pengembangan software menggunakan model sdlc guna mencapai keselarasan dengan kebutuhan pengguna," *Journal of Informatic and Business*, vol. 1, no. 4, pp. 229–232, 2024.

[38] I Gede Ananda Krisna Pranajaya, Benny Pinontoan, and Eliasta Ketaren, "Development of markerless based augmented reality interactive learning media of 3d geometry shapes," in *Seminar Nasional Teknologi Informasi dan Komunikasi (SENTIKA)*, Manado, Indonesia, 2021, program Studi Sistem Informasi, Universitas Sam Ratulangi. [Online]. Available: mailto:ipranajaya106@student.unsrat.ac.id

[39] R. S. Pressman, *Software Engineering: A Practitioner's Approach*, 7th ed. McGraw-Hill, 2010.

[40] J. Martin, *Rapid Application Development*. Macmillan Publishing, 1991.

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[41] M. Rizwan and M. Iqbal, "Application of 80/20 rule in software engineering rapid application development (rad) model," in *Software Engineering and Computer Systems*, J. M. Zain, W. M. W. Mohd, and E. El-Qawasmeh, Eds. Berlin, Heidelberg: Springer, 2011, pp. 518–532.

[42] P. Pietrzak, P. Perek, and D. Makowski, "Latency evaluation in the image acquisition system based on mtca.4 architecture for plasma diagnostics," *Journal of Fusion Energy*, vol. 43, may 2024.

[43] T. Akenine-Möller, E. Haines, and N. Hoffman, *Real-Time Rendering*, 4th ed. CRC Press, 2018.