

7. REFERENCES

- [1] M. Lee, C. Bak, and J. W. Lee, “A prediction and auto-execution system of smartphone application services based on user context-awareness,” *J. Syst. Archit.*, vol. 60, no. 8, pp. 702–710, 2014.
- [2] W. P. Lee and K. H. Lee, “Making smartphone service recommendations by predicting users’ intentions: A context-aware approach,” *Inf. Sci. (Ny.)*, vol. 277, pp. 21–35, 2014.
- [3] S. A. Hoseini-Tabatabaei, A. Gluhak, and R. Tafazolli, “A Survey on Smartphone-Based Systems for Opportunistic User Context Recognition,” *ACM Comput. Surv.*, vol. 45, no. 3, p. 27:1–27:51, 2013.
- [4] A. Misra and L. Lim, “Optimizing sensor data acquisition for energy-efficient smartphone-based continuous event processing,” *Proc. - IEEE Int. Conf. Mob. Data Manag.*, vol. 1, pp. 88–97, 2011.
- [5] J. R. Kwapisz, G. M. Weiss, and S. A. Moore, “Activity Recognition Using Cell Phone Accelerometers,” *SIGKDD Explor. Newsl.*, vol. 12, no. 2, pp. 74–82, 2011.
- [6] G. Maggiore, C. Santos, and A. Plaat, “Smarter smartphones: Understanding and predicting user habits from gps sensor data,” *Procedia Comput. Sci.*, vol. 34, pp. 297–304, 2014.
- [7] F. Liu, D. Janssens, J. Cui, G. Wets, and M. Cools, “Characterizing activity sequences using profile Hidden Markov Models,” *Expert Syst. Appl.*, vol. 42, no. 13, pp. 5705–5722, 2015.
- [8] T. M. T. Do and D. Gatica-Perez, “Contextual conditional models for smartphone-based human mobility prediction,” *Proc. 2012 ACM Conf. Ubiquitous Comput.*, p. 163, 2012.
- [9] J. Ye, S. Dobson, and S. McKeever, “Situation identification techniques in pervasive computing: A review,” *Pervasive Mob. Comput.*, vol. 8, no. 1, pp. 36–66, 2012.

- [10] P. Dai, S. S. Ho, and F. Rudzicz, “Sequential behavior prediction based on hybrid similarity and cross-user activity transfer,” *Knowledge-Based Syst.*, vol. 77, pp. 29–39, 2015.
- [11] Y. Kawahara, H. Kurasawa, and H. Morikawa, “Recognizing user context using mobile handsets with acceleration sensors,” In Proceedings of the IEEE International Conference on Portable Information Devices (PORTABLE’07). pp. 1–5, 2007
- [12] D. Siewiorek, A. Smailagic, J. Furukawa, A. Krause, N. Moraveji, K. Reiger, J. Shaffer, and F. L. Wong, “SenSay: A context-aware mobile phone,” *IEEE International Symposium on Wearable Computers*. pp. 248–249, 2003
- [13] J. Yang, “Toward physical activity diary: Motion recognition using simple acceleration features with mobile phones,” *International Workshop on Interactive Multimedia for Consumer Electronics*. pp. 1–10, 2009
- [14] T. Brezmes, J. Gorracho, and J. Cotrina, “Activity recognition from accelerometer data on a mobile phone,” *International Work-Conference on Artificial Neural Networks: Part II: Distributed Computing, Artificial Intelligence, Bioinformatics, Soft Computing, and Ambient Assisted Living*. pp. 796–799, 2009
- [15] I. König, B. N. Klein, and K. David, “On the stability of context prediction,” *Proc. 2013 ACM Conf. Pervasive ubiquitous Comput. Adjunct. Publ. - UbiComp ’13 Adjunct.*, pp. 471–480, 2013.
- [16] A. Bastawrous, “mHealth Possibilities in a Changing World. Distribution of Global Cell Phone Subscriptions,” *J. Mob. Technol. Med.*, vol. 2, no. 1, pp. 22–25, 2013, doi: 10.7309/jmtm.78.
- [17] “Internet access – households and individuals, Great Britain: 2018”. [Online]. Available:
<https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/bulletins/internetaccesshouseholdsandindividuals/2018> [Accessed 20-Feb-2020].

- [18] P. Pelegris, K. Banitsas, T. Orbach, and K. Marias, “A novel method to detect heart beat rate using a mobile phone,” 2010 Annu. Int. Conf. IEEE Eng. Med. Biol. Soc. EMBC’10, no. February 2014, pp. 5488–5491, 2010.
- [19] "Smartphone Market Share | OS Data Overview ". [Online]. Available: <https://www.idc.com/promo/smartphone-market-share/os> [Accessed 24-Feb-2020].
- [20] N. Singh and D. Singh, “Performance Evaluation of K-Means and Heirarchical Clustering in Terms of Accuracy and Running Time,” Int. J. Comput. Sci. Inf. Technol., vol. 3, no. 3, pp. 4119–4121, 2012.
- [21] D. Kondor, S. Grauwin, Z. Kallus, I. Gódor, S. Sobolevsky, and C. Ratti, “Prediction limits of mobile phone activity modelling,” R. Soc. Open Sci., 2017.
- [22] "Android Sensor Types". [Online]. Available: <https://source.android.com/devices/sensors/sensor-types> [Accessed 26-Feb-2020]
- [23] V. K. Singh, L. Freeman, B. Lepri, and A. Pentland, “Predicting spending behavior using socio-mobile features,” Proc. - Soc. 2013, no. September, pp. 174–179, 2013.
- [24] R. Sathya and A. Abraham, “THE SCIENCE AND INFORMATION ORGANIZATION Editorial Preface,” Int. J. Adv. Res. Artif. Intell. Int. J. Adv. Res. Artif. Intell., vol. 2, no. 2, pp. 34–38, 2013.
- [25] U. Christoph, K. H. Krempels, J. Von Stülpnagel, and C. Terwelp, “Automatic context detection of a mobile user,” WINSYS 2010 - Proc. Int. Conf. Wirel. Inf. Networks Syst., no. August, pp. 189–194, 2010.
- [26] D. Peebles, H. Lu, N. D. Lane, T. Choudhury, and A. T. Campbell, “Community-guided learning: Exploiting mobile sensor users to model human behavior,” in Proceedings of the National Conference on Artificial Intelligence, 2010.

- [27] M. Berchtold, M. Budde, D. Gordon, H. R. Schmidtke, and M. Beigl, “ActiServ: Activity recognition service for mobile phones,” in Proceedings - International Symposium on Wearable Computers, ISWC, 2010.
- [28] A. Y. Ng and M. I. Jordan, “On discriminative vs. Generative classifiers: A comparison of logistic regression and naive bayes,” in Advances in Neural Information Processing Systems, 2002.
- [29] “A Gentle Introduction to Expectation-Maximization (EM Algorithm)”. [Online]. Available: <https://machinelearningmastery.com/expectation-maximization-em-algorithm/> [Accessed 01-Jan-2020]
- [30] “Google Awareness API | A unified sensing platform enabling applications to be aware of multiple aspects of a user’s context, while managing battery and memory health”. [Online]. Available: <https://developers.google.com/awareness> [Accessed 01-Mar-2020]
- [31] K. Akherfi, M. Gerndt, and H. Harroud, “Mobile cloud computing for computation offloading: Issues and challenges,” *Appl. Comput. Informatics*, vol. 14, no. 1, pp. 1–16, 2018, doi: 10.1016/j.aci.2016.11.002.