

Literaturliste

Fehlervorhersage

- Ceylan, E., Kutlubay, F. O., & Bener, A. B. (2006). Software defect identification using machine learning techniques. *Proceedings - 32nd Euromicro Conference on Software Engineering and Advanced Applications, SEAA*, 240–246. <https://doi.org/10.1109/EUROMICRO.2006.56>
- Challagulla, V. U. B., Bastani, F. B., Yen, I. L., & Paul, R. A. (2008). Empirical assessment of machine learning based software defect prediction techniques. *International Journal on Artificial Intelligence Tools*, 17(2), 389–400. <https://doi.org/10.1142/S0218213008003947>
- Dhiauddin, M., & Ibrahim, S. (2012). A Prediction Model for System Testing Defects using Regression Analysis. *International Journal of Soft Computing and Software Engineering*, 2(7), 55–68. <https://doi.org/10.7321/jscse.v2.n7.6>
- Hammouri, A., Hammad, M., Alnabhan, M., & Alsarayrah, F. (2018). Software Bug Prediction using machine learning approach. *International Journal of Advanced Computer Science and Applications*, 9(2), 78–83. <https://doi.org/10.14569/IJACSA.2018.090212>
- Li, J., He, P., Zhu, J., & Lyu, M. R. (2017). Software defect prediction via convolutional neural network. *Proceedings - 2017 IEEE International Conference on Software Quality, Reliability and Security, QRS 2017*, 318–328. <https://doi.org/10.1109/QRS.2017.42>
- Queiroz, R., Berger, T., & Czarnecki, K. (2016). Towards predicting feature defects in software product lines. *FOSD 2016 - Proceedings of the 7th International Workshop on Feature-Oriented Software Development, Co-Located with SPLASH 2016*, 58–62. <https://doi.org/10.1145/3001867.3001874>
- Ratzinger, J., Sigmund, T., & Gall, H. C. (2008). On the relation of refactoring and software defects. *Proceedings - International Conference on Software Engineering*, 35–38. <https://doi.org/10.1145/1370750.1370759>
- Son, L. H., Pritam, N., Khari, M., Kumar, R., Phuong, P. T. M., & Thong, P. H. (2019). Empirical study of software defect prediction: A systematic mapping. *Symmetry*, 11(2). <https://doi.org/10.3390/sym11020212>
- Song, Q., Jia, Z., Shepperd, M., Ying, S., & Liu, J. (2011). A General Software Defect-Proneness Prediction Framework. *IEEE Transactions on Software Engineering*, 37(3), 356–370. <https://doi.org/10.1109/TSE.2010.90>
- Zimmermann, T., Premraj, R., & Zeller, A. (2007). Predicting defects for eclipse. *Proceedings - ICSE 2007 Workshops: Third International Workshop on Predictor Models in Software Engineering, PROMISE'07*. <https://doi.org/10.1109/PROMISE.2007.10>

GitHub Mining

- Joblin, M., Mauerer, W., Apel, S., Siegmund, J., & Riehle, D. (2015). From developer networks to verified communities: A fine-grained approach. *Proceedings - International Conference on Software Engineering*, 1, 563–573. <https://doi.org/10.1109/ICSE.2015.73>
- Kagdi, H., Collard, M. L., & Maletic, J. I. (2007). A survey and taxonomy of approaches for mining software repositories in the context of software evolution. *Journal of Software Maintenance and Evolution: Research and Practice*, 19(2), 77–131. <https://doi.org/10.1002/smr.344>
- Kalliamvakou, E., Gousios, G., Blincoe, K., Singer, L., German, D. M., & Damian, D. (2014). The promises and perils of mining GitHub. *Proceedings of the 11th Working Conference on Mining Software Repositories - MSR 2014*, 3109, 92–101. <https://doi.org/10.1145/2597073.2597074>
- Lozano, A. (2011). An overview of techniques for detecting software variability concepts in source code. *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 6999 LNCS, 141–150. https://doi.org/10.1007/978-3-642-24574-9_19
- Muthukumaran, K., Choudhary, A., & Murthy, N. L. B. (2015). Mining github for novel change metrics to predict buggy files in software systems. *Proceedings - 1st International Conference on Computational Intelligence and Networks, CINE 2015*, 15–20. <https://doi.org/10.1109/CINE.2015.13>
- Russell, M. A., & Klassen, M. (2018). *Mining the Social Web - Data Mining Facebook, Twitter, LinkedIn, Instagram, GitHub, and more*. O'Reilly.
- Tan, M., Tan, L., Dara, S., & Mayeux, C. (2015). Online Defect Prediction for Imbalanced Data. *Proceedings - International Conference on Software Engineering*, 2, 99–108. <https://doi.org/10.1109/ICSE.2015.139>
- Williams, C. C., & Hollingsworth, J. K. (2005). Automatic mining of source code repositories to improve bug finding techniques. *IEEE Transactions on Software Engineering*, 31(6), 466–480. <https://doi.org/10.1109/TSE.2005.63>
- Xie, T., & Pei, J. (2006). MAPO. *Proceedings of the 2006 International Workshop on Mining Software Repositories - MSR '06*, 54. <https://doi.org/10.1145/1137983.1137997>

Methodik

- Chapman, P., Clinton, J., Kerber, R., Khabaza, T., Reinartz, T., Shearer, C., & Wirth, R. (2000). CRISP-DM 1.0. *CRISP-DM Consortium*, 76. <https://doi.org/10.1109/ICETET.2008.239>

- Berger, T., & Guo, J. (2014). Towards system analysis with variability model metrics. *ACM International Conference Proceeding Series*. <https://doi.org/10.1145/2556624.2556641>
- Gao, K., Khoshgoftaar, T. M., Wang, H., & Seliya, N. (2011). Choosing software metrics for defect prediction: an investigation on feature selection techniques. *Software: Practice and Experience*, 41(5), 579–606. <https://doi.org/10.1002/spe.1043>
- Kaur, A., Kaur, K., & Kaur, H. (2015). An investigation of the accuracy of code and process metrics for defect prediction of mobile applications. *2015 4th International Conference on Reliability, Infocom Technologies and Optimization: Trends and Future Directions, ICRITO 2015*, 1–6. <https://doi.org/10.1109/ICRITO.2015.7359220>
- Krüger, J., Gu, W., Shen, H., Mukelabai, M., Hebig, R., & Berger, T. (2018). Towards a beter understanding of software features and their characteristics: A case study of Marlin. *ACM International Conference Proceeding Series*, 105–112. <https://doi.org/10.1145/3168365.3168371>
- Lee, T., Nam, J., Han, D., Kim, S., & Peter In, H. (2016). Developer Micro Interaction Metrics for Software Defect Prediction. *IEEE Transactions on Software Engineering*, 42(11), 1015–1035. <https://doi.org/10.1109/TSE.2016.2550458>
- Madeyski, L., & Jureczko, M. (2015). Which process metrics can significantly improve defect prediction models? An empirical study. *Software Quality Journal*, 23(3), 393–422. <https://doi.org/10.1007/s11219-014-9241-7>
- Moser, R., Pedrycz, W., & Succi, G. (2008). A Comparative analysis of the efficiency of change metrics and static code attributes for defect prediction. *Proceedings - International Conference on Software Engineering*, 181–190. <https://doi.org/10.1145/1368088.1368114>
- Nagappan, N., Ball, T., & Zeller, A. (2006). Mining metrics to predict component failures. *Proceedings - International Conference on Software Engineering*, 2006, 452–461. <https://doi.org/10.1145/1134285.1134349>
- Okutan, A., & Yıldız, O. T. (2014). Software defect prediction using Bayesian networks. *Empirical Software Engineering*, 19(1), 154–181. <https://doi.org/10.1007/s10664-012-9218-8>
- Rahman, F., & Devanbu, P. (2013). How, and why, process metrics are better. *Proceedings - International Conference on Software Engineering*, 432–441. <https://doi.org/10.1109/ICSE.2013.6606589>
- Singh, G., Singh, D., & Singh, V. (2011). A study of software metrics. *IJCEM International Journal of Computational Engineering & Management*, 11, 22–27.
- Son, L. H., Pritam, N., Khari, M., Kumar, R., Phuong, P. T. M., & Thong, P. H. (2019). Empirical study of software defect prediction: A systematic mapping. *Symmetry*, 11(2). <https://doi.org/10.3390/sym11020212>
- Wang, H., Khoshgoftaar, T. M., & Seliya, N. (2011). How many software metrics should be selected for defect prediction? *Proceedings of the 24th International Florida Artificial Intelligence Research Society, FLAIRS - 24*, (Mi), 69–74.

Machine Learning

- Caruana, R., & Niculescu-Mizil, A. (2006). An empirical comparison of supervised learning algorithms. *ACM International Conference Proceeding Series*, 148, 161–168. <https://doi.org/10.1145/1143844.1143865>
- James, G., Witten, D., Hastie, T., & Tibshirani, R. (2013). An Introduction to Statistical Learning. In *Synthesis Lectures on Mathematics and Statistics*. <https://doi.org/10.1007/978-1-4614-7138-7>
- Jukes, E. (2017). Encyclopedia of Machine Learning and Data Mining. In C. Sammut & G. I. Webb (Eds.), *Reference Reviews* (Vol. 32). <https://doi.org/10.1007/978-1-4899-7687-1>
- Khoshgoftaar, T. M., Gao, K., & Seliya, N. (2010). Attribute selection and imbalanced data: Problems in software defect prediction. *Proceedings - International Conference on Tools with Artificial Intelligence, ICTAI*, 1, 137–144. <https://doi.org/10.1109/ICTAI.2010.27>
- Seliya, N., Khoshgoftaar, T. M., & Van Hulse, J. (2009). A study on the relationships of classifier performance metrics. *Proceedings - International Conference on Tools with Artificial Intelligence, ICTAI*, 59–66. <https://doi.org/10.1109/ICTAI.2009.25>
- Sokolova, M., Japkowicz, N., & Szpakowicz, S. (2006). Beyond accuracy, F-score and ROC: A family of discriminant measures for performance evaluation. *AAAI Workshop - Technical Report, WS-06-06*, 24–29. https://doi.org/10.1007/11941439_114

SPL allgemein

- Apel, S., Batory, D., Kästner, C., & Saake, G. (2013). *Feature-Oriented Software Product Lines*.
<https://doi.org/10.1007/978-3-642-37521-7>
- Berger, T., Lettner, D., Rubin, J., Grünbacher, P., Silva, A., Becker, M., ... Czarnecki, K. (2015). What is a feature? *Proceedings of the 19th International Conference on Software Product Line - SPLC '15*, 3(1), 16–25. <https://doi.org/10.1145/2791060.2791108>
- Lee, K., Kang, K. C., & Lee, J. (2002). Concepts and guidelines of feature modeling for product line software engineering. *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 2319(April), 62–77.
https://doi.org/10.1007/3-540-46020-9_5
- Liebig, J., Apel, S., Lengauer, C., Kästner, C., & Schulze, M. (2010). An analysis of the variability in forty preprocessor-based software product lines. *Proceedings - International Conference on Software Engineering*, 1, 105–114. <https://doi.org/10.1145/1806799.1806819>
- Pohl, K., Böckle, G., & van der Linden, F. (2005). *Software Product Line Engineering*.
<https://doi.org/10.1007/3-540-28901-1>
- Queiroz, R., Passos, L., Valente, M. T., Hunsen, C., Apel, S., & Czarnecki, K. (2017). The shape of feature code: an analysis of twenty C-preprocessor-based systems. *Software and Systems Modeling*, 16(1), 77–96. <https://doi.org/10.1007/s10270-015-0483-z>
- Sincero, J., Tartler, R., Lohmann, D., & Schröder-Preikschat, W. (2011). Efficient extraction and analysis of preprocessor-based variability. *ACM SIGPLAN Notices*, 46(2), 33–42.
<https://doi.org/10.1145/1942788.1868300>
- Thüm, T., Apel, S., Kästner, C., Schaefer, I., & Saake, G. (2014). A classification and survey of analysis strategies for software product lines. *ACM Computing Surveys*, 47(1).
<https://doi.org/10.1145/2580950>

TM Programmcode

- Charoenwet, W. (2018). A Digital collection study and framework exploration-Applying textual analysis on source code collection. *Proceedings of the 2018 3rd Digital Heritage International Congress, Digital Heritage 2018 - Held Jointly with the 2018 24th International Conference on Virtual Systems and Multimedia, VSMM 2018*, 1–8. <https://doi.org/10.1109/DigitalHeritage.2018.8810105>
- Dreweke, A., Fischer, I., Werth, T., & Wörlein, M. (2010). Text Mining in Program Code. In *Handbook of Research on Text and Web Mining Technologies* (pp. 626–645). <https://doi.org/10.4018/978-1-59904-990-8.ch035>