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Research Survey Report Topic Proposal

For my research survey report topic, I would like to propose the topic of Model Driven Testing and Testing Automation. I believe that there are enough published papers on the topic to call for a survey. I am choosing to include the addition of Testing Automation to the topic to narrow it down to a more specific application of the concepts.

This paper, found on google scholar, has a PDF available for download. It starts with a more basic explanation of model driven testing which is helpful, some of the terminology and discussion of the method goes over my head. It focuses on one tool for testing and that tool’s architecture and specifications.

Tretmans, G. J., & Brinksma, H. (2003). TorX: Automated Model-Based Testing. In A. Hartman, & K. Dussa-Ziegler (Eds.), First European Conference on Model-Driven Software Engineering (pp. 31-43)

This source found in a search from the RIT library catalogue is available in full online or as a PDF download. This paper focuses on the creation of a testing model from the UML sequence diagrams already created about the software. I believe it will be helpful because it ties in to diagrams and concepts we have already covered in class and builds on them. This will help me get a foothold in understanding the topic before we get to it on the class schedule.

Grigorjevs, J. (2011). Model-Driven Testing Approach Based on UML Sequence Diagram.*Rigas Tehniskas Universitates Zinatniskie Raksti, 47*, 85. <https://ezproxy.rit.edu/login?url=https://www-proquest-com.ezproxy.rit.edu/docview/918228892?accountid=108>

This source found in a search from the RIT library catalogue is available in full online or as a PDF download. This paper focuses most on real world applications and requirements for testing such as regulatory or safety rules. It reinforces the importance of thorough testing and how use case maps can be used as part of the process to automate the creation and completion of the tests. It is 27 pages long so I haven’t had the chance to read past the first section.

Kesserwan, N., Dssouli, R., Bentahar, J. *et al.* From use case maps to executable test procedures: a scenario-based approach. *Softw Syst Model* **18,**1543–1570 (2019). <https://doi-org.ezproxy.rit.edu/10.1007/s10270-017-0620-y>

This source found in a search from the RIT library catalogue is available in full online or as a PDF download. This paper seems like a higher level overview of MBT as whole and the different methods used to accomplish it. It covers a wider range than some of the other papers and I think it will be helpful because of it.

Utting, M., Pretschner, A., & Legeard, B. (2012). A taxonomy of model-based testing approaches. Software Testing, Verification & Reliability, 22(5), 297-312. doi:10.1002/stvr.456