

# Master's Thesis

## Serverless Secondary Studies

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Science is a community-driven process. Thus, awareness of (i) existing work in a research field or (ii) related work for a given research question is of fundamental importance for all researchers. Established methods for reviewing existing work with high quality are secondary studies, e.g., structured literature reviews (SLR) and mapping studies (MS). However, conducting a secondary study is a manual, time consuming, and error prone task. This problem is intensified because the total number of new publications per year continuously increased over the last decade and researchers are a scarce resource. Therefore, discussions of related work often fail to reflect the state-of-the-art accurately and are hard to reproduce and verify due to a lack of time and resources at hand of researchers. Ultimately, this significantly impedes the community-driven scientific process.

In this work, an established method for conducting SLRs and a corresponding toolkit is redesigned as an event-driven serverless application. The application should encapsulate individual tasks of an SLR in different service functions. Similarly to the UNIX paradigm of pipes and filters, functions can be composed to allow researchers to customize tool support for a specific research protocol. It should be possible, to execute compositions periodically to assure current results.

In the context of the thesis, the application is prototypically implemented and evaluated regarding the accuracy and completeness of identified publications and cost-efficiency.



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### Our Mission:

Our lectures cover fundamental methods and techniques in the areas of service computing, cloud computing, and enterprise computing. We like to engage students in hands-on building of distributed information systems and to take an interdisciplinary approach to evaluating such systems. Through a close mentoring of students, especially in our seminars, we aim to introduce students to our ongoing research and to excite them to do future studies and research with us.