

Special Session on

Machine Learning for Mining Software Repositories

14th International Conference on Machine Learning and Applications (ICMLA'2015)

Recently, machine learning has started to play a key role in making mining diverse software repositories possible. Open source software systems are becoming larger and larger with many components available online. Available to download are not only the source code but also the messages exchanged by the contributors, the defect databases and the new features requests. All this information amounts to GBs of mostly textual data that is hard to analyse and summarize efficiently.

Many of the well-known machine learning techniques can be used to mine such information in order to make the maintenance of software systems easier, provide insights about the software design and automate the defects triage. It is important that researchers share datasets, methods and procedures and results that can be easily reproduced.

The goal of this special session is to bring together researchers from software engineering and machine learning to exchange ideas about the current state of practice of Mining Software Repositories. Some topics relevant to this special session include, but are not limited to:

- Approaches, applications, and tools for software repository mining
- Classification and prediction of bugs based on the analysis of software repositories
- Mining code fragments
- Mining bug reports for fix-time prediction
- Mining bug reports for re-opened bug prediction
- Mining bug reports for blocking bug prediction
- Mining bug reports for severity/priority prediction
- Mining bug reports for delays in the integration of a resolved issue to a release
- Mining bug reports for bug triaging
- Mining bug reports for duplicate bug detection
- Predictive models for project risk assessment
- Social network analysis for software repositories
- Sentiment analysis for question answering sites
- Recommendation systems for software development
- Mining software licensing and copyrights
- Mining execution traces and logs
- Text mining for software repositories

Important Dates (Tentative):

Paper submission deadline - August 6th, 2015
Acceptance Notification - September 9th, 2015
Camera-ready paper due - October 1st, 2015

Special Session Chairs:

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