

**Call For Papers: 8th International Conference on Predictive Models in Software Engineering** 



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### **Predictive Models in Software Engineering**

THEME: The theme of PROMISE'12 is the next generation of empirical SE (next-gen). While we encourage submission of the traditional style of PROMISE papers, we also seek "next gen" papers that extend this area in significant new directions (see notes below)

**TOPICS:** Our topics of interest include but are not limited to:

- Effort prediction models
- Defect prediction models
- Meta-analysis and generalizations of predictive models exploring certain questions
- Replicated studies
- Predicting various intermediate or final outcomes of interest regarding business, team, human, people, process, and organizational aspects of software engineering
- Privacy and ethical issues in sharing and modeling

Qualitative research guiding and informing the process of building future predictive models

- Instance-based models predicting outcomes by examining similarities to past experiences
- Industrial experience reports detailing the application of software technologies processes, methods, or tools
  and their effectiveness in industrial settings.
- Tools for software researchers that effectively gather and analyze data to support reproducible and verifiable research.

#### Data

PROMISE 2012 will give the highest priority to empirical studies based on publicly available datasets. It is therefore encouraged, but it is not mandatory, that conference attendees contribute the data used in their analysis to the online PROMISE data repository. The repository currently holds 142 data sets, which can be used to repeat/confirm/refute/improve previous results.

# Kinds of Papers

This conference encourages both standard papers and next-gen papers (and note that only next-gen papers can be submitted for consideration to the special journal issue associated with this conference).

Standard papers focus on prediction systems; e.g. L learners applied to D data sets in some M\*N cross-val. For an excellent examples of L\*D\*M\*N studies, see TSE pre-prints and the papers by Hall et al. <a href="http://goo.gl/XRWuk">http://goo.gl/XRWuk</a> (for defect prediction) and Dajaeger et al. <a href="http://goo.gl/UNO4E">http://goo.gl/UNO4E</a> (for effort prediction). For such standard papers, we strongly discourage results based on

- just a few data sets in domains where many data sets are available available in the PROMISE repository;
- tiny effects sizes: e.g. an MMRE improvement of 10% when in data sets where the MMRE can range up to 10.000%:
- the "broken" PROMISE data sets (see comments at http://promisedata.org/?p=30).

Next-gen papers focus on all the issues that surround predictive models. For discussions on next generation predictive modeling see (a) the ICSE'11 tutorial on Empirical SE, version 2.0 at http://goo.gl/MWzlq; or (b) the "Special Issue Notes" at http://goo.gl/b3E05. Issues relevant to next-gen papers include, but are not restricted to the following:

- Before a predictive model is built:
  - Privacy concerns of the individual and the corporate must be addressed.
  - Training data data quality must be assessed: see http://goo.gl/QE5au.
- When building a predictive model:
  - it is important that the tools are run correctly, as discussed in http://goo.gl/qtc9o;
- After the predictors are built:
  - Prediction systems could be used in decision making for project managers (e.g. as done in <a href="http://goo.gl/AlqC4">http://goo.gl/y7Agm</a>).

# Submission

Submissions must be original work, not published or under review elsewhere.

Submissions must conform to the ACM SIG proceedings templates from http://goo.gl/wE1k.

Papers must not exceed 10 pages (including references).

Papers should be submitted to via Easychair: http://www.easychair.org/conferences/?conf=promise2012.

#### Special Issue

Papers accepted to PROMISE'12 may also be submitted to a forthcoming special journal issue on "Empirical Software Engineering, version 2.0".

Authors with good reviews from PROMISE'12 are strongly encouraged to submit to this special issue since several reviewers used for PROMISE'12 will also review papers for this issue.

It is a requirement for all submissions to the special issue to have some section called "Empirical SE, V2.0" that discusses next gen issues; i.e. how their work fits into the broader picture beyind just building a predictor (see notes, above).