

# 2<sup>nd</sup> International Workshop on Data-Driven Decisions, Experimentation and Evolution (DDrEE 2020)

In conjunction with ICSE'20, May 2020, Seoul, South Korea

<http://datadrivensoftware.org/>

## IMPORTANT DATES

**Submissions: January 31, 2020 (extended!)**

Acceptance notification: February 25, 2020

Camera-ready copies: March 16, 2020

Workshop: May 2020

## ORGANISERS

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## PROGRAM COMMITTEE (tentative)

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## MOTIVATION AND CONTEXT

Current software engineering practice has shown large interest and demonstrated quick adoption of experimentation ideas and practices, and, more generally of data science platforms and techniques that will allow to generate value from users' data by catering for their needs. Additionally, the large amount of data collected at runtime, together with the increasing need to understand the impact changes on software systems have on end users call for novel software engineering approaches that focus on experiment-driven feature development, data collection pipelines and architectures, runtime frameworks and data management for data-driven decisions. This is also manifested in the recent DataOps movement, which strives to streamline the development and operation of data analytics pipelines using agile practices.

To realize these approaches and develop innovative solutions with respect to automation and tooling for runtime optimization, decision making and data management, there is a need for deep synergies between software engineers, data scientists and researchers.

## GOALS

In align with the overall goals of DDrEE on identifying problems in adoption and use of data-driven decisions, discussing new ideas and innovative use cases, and building a community, DDrEE 2020 will focus is on open topics identified in the previous edition of the workshop:

- (i) methods and tools for efficient data collection and usage
- (ii) online experimentation
- (iii) synergies between data scientists and software engineers.

## WORKSHOP STRUCTURE AND PLANNED OUTCOMES

The full-day workshop will open with a keynote talk. The presenter of each accepted paper will then have approx. 20 mins for presentation and Q&A. We will try to stimulate discussions on the important challenges of data-driven decisions and experimentation, creating an interactive environment and involving participants with and without accepted paper.

In the afternoon, we will create topic-based groups and organize two break-out group sessions. Following the experience from the past edition and to better consolidate the results from it, we plan to publish a report of the workshop's outcomes in ACM SIGSOFT Software Engineering Notes.

## TOPICS

- Experience reports on automated experimentation practices
- Analysis and design of data analytics architectures
- Translating data into insights for software development or operation
- Case studies on online, continuous experimentation practices in industry
- Data-driven decision-making and optimization at runtime
- Statistical and mathematical aspects of online continuous experimentation
- DataOps
- Management of data pipelines
- Use of machine learning for automated data-driven decision at runtime
- Evaluation and trainability of machine learning systems for automated decisions

## SUBMISSIONS

The workshop invites three types of submissions:

- **Full research papers** and **experience reports**, presenting original and evaluated research. Maximum length: 7 pages incl. references.
- **Position papers**, presenting promising initial results from work-in-progress approaches or research challenges, experiences or roadmaps related to the theme of the workshop. Maximum length: 4 pages incl. references.
- **Industrial abstracts** presenting lessons learned and experiences from industrial R&D. Maximum length: 2 pages incl. references.

Submitted papers will be reviewed by at least 3 members of the PC and judged based on their relevance to the workshop scope, quality and originality of their results. Accepted papers will be published at the ICSE 2020 Companion volume by ACM.