Call for Papers

Following on from the success of previous Fairware meetings, Fairware'23 aims to bring together these researchers, practitioners, and those interested to improve software fairness; as well as to raise awareness of this problem. While we hope many participants will elect to meet in person, our current expectation is that Fairware'23 will be a hybrid event.

What is software fairness? As a society, we decide what attributes influence certain behavior. For example, race should not affect access to financial loans. Examples of real-world software exhibiting bias include image search and translation engines exhibiting gender stereotypes and facial detection and recognition tools' depending on demographics.

Is there research on software fairness? There are many software engineering challenges to building fair software that has not been addressed, from specifying fairness requirements to analysis, testing, and maintenance. FairWare 2023 will bring together academic and industry researchers and practitioners interested in creating software engineering technology to improve software fairness.

Why do we need more research on software fairness? Recently, the requirements for fairer AI have become more common. The European Union, Microsoft, and the IEEE have all released white papers discussing fair and ethical AI. While these documents differ in the details, they all agree that ethical AI must be "FAT"; i.e. fair, accountable and transparent. Such fairer "FAT"er AI systems support five "FAT" items:

- Integration with the human agency;
- Accountability where old conclusions are challenged;
- Transparency of how conclusions are made;
- Oversight on what to change so as to change conclusions;
- Inclusiveness such that no specific segment of society is especially and unnecessarily privileged or discriminated against by the actions of the AI.

To support fairer "FAT"er software we aim to empower software developers, individuals and organizations, with methods and tools that **measure**, **manage**, and **mitigate** unfairness. Therefore we ask for papers that explore:

- How to **identify** bias in AI models?
- How to **explain** the source or reason for this bias?
- How to **measure** the level of bias on these systems?
- How to **mitigate** bias by changing model training?
- How to **support** for explanations of automated decisions and redress for stakeholders for accountability and transparency of deployed systems?
- How to **determine** the trade-off between making fair(er) systems and other objectives of a system?
- Are there **inherently unfair social pressures** that doom us to forever delivering unfair software?

Submitting to FairWare'23

We are accepting contributions as full papers (4–8 pages), with either novel research results or a statement of vision or position, on one or more of the following perspectives

Improving fairness – Present a novel approach or evaluate an existing approach for software fairness. This can be along the lines, but not limited to identification, explanation, measurement, and mitigation of fairness.

Applying fairness – artificial intelligence, machine learning, requirements and design, testing, software engineering cycle, and policy-making, among many other areas of interest.

Pose challenges & venues – Show the weak points in fairness methods, and lead the way on the path to novel research. Request new models, processes, metrics, and artifacts.

Collaboration studies – Between researchers & industry, across the industry, across domains and disciplines, or collaborations between research groups.

Submission

Papers will be submitted to HotCRP. Submissions must comply with the ACM formatting guidelines (http://www.acm.org/publications/proceedings-template), not exceed the 8-page limit, be written in English, must present an original contribution, and must not be published or under review elsewhere.

At least one author of each accepted paper must register for the workshop. Each paper will be presented in a 15-20 minute presentation with follow-up questions and discussion.

Important Dates

Submission: 13 January
Notification of acceptance: 24 February
Camera-ready submission: 17 March
Workshop date: Before 2X May

Program Committee Members

- Joymallya Chakraborty, Amazon
- Alex Groce, Northern Arizona University
- Christine Julien, University of Texas at Austin
- Os Keyes, University of Washington
- Rahul Pandita, GitHub
- Siobahn Day Grady, North Carolina Central University
- Gema Rodriguez-Perez, University British Columbia
- Muhammad Ali Gulzar, Virginia Tech
- Mei Nagappan, University of Waterloo
- Kevin Moran, George Mason University
- Lelia Marie Hampton, Massachusetts Institute of Technology

For more information

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