FairWare 2018

International Workshop on Software Fairness

May 29, 2018
Gothenburg, Sweden
Collocated with ICSE 2018

http://fairware.cs.umass.edu

ICSE

UMass Amherst

May 27 - June 3 2018 Gothenburg, Sweden
Welcome from the organizers

http://fairware.cs.umass.edu
# FairWare 2018 Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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| 08:45 - 09:00 | Welcome *(pdf)*  
Yuriy Brun (University of Massachusetts Amherst) |
| 09:00 - 09:45 | Keynote: Follow the data! Algorithms and systems for responsible data science *(pdf)*  
Julia Stoyanovich (Drexel University) |
| 09:50 - 10:10 | A roadmap for ethics-aware software engineering *(pdf)*  
Fatma Başak Aydınemir and Fabiano Dalpiaz (Utrecht University) |
| 10:10 - 10:30 | Classification with probabilistic fairness guarantees  
Philip Thomas and Stephen Giguere (University of Massachusetts Amherst) |
| 10:30 - 11:00 | Break                                                                 |
| 11:00 - 11:45 | Keynote: Program fairness through the lens of formal methods *(pdf)*  
Aws Albarghouthi (University of Wisconsin—Madison) |
| 11:50 - 12:10 | Integrating social values into software design patterns *(pdf)*  
Waqar Hussain, Davoud Mougouei, and Jon Whittle (Monash University) |
| 12:10 - 12:30 | Fairness definitions explained *(pdf)*  
Sahil Verma (IIT Kanpur India) and Julia Rubin (University of British Columbia) |
| 12:30 - 13:50 | Lunch                                                                 |

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<tr>
<td>12:30 – 13:50</td>
<td>Lunch</td>
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<td>14:00 – 14:45</td>
<td><strong>Keynote: Counterfactual reasoning in algorithmic fairness</strong>&lt;br&gt;Ricardo Silva (University College London)</td>
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<tr>
<td>14:50 – 15:10</td>
<td><strong>Model-based discrimination analysis: A position paper</strong>&lt;br&gt;Qusai Ramadan, Amir Shayan Ahmadian, Daniel Strüber, Jan Jürjens, and Steffen Staab (University of Koblenz-Landau)</td>
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<td>15:10 – 15:30</td>
<td><strong>Avoiding the intrinsic unfairness of the trolley problem</strong>&lt;br&gt;Tobias Holstein (Mälardalen University) and Gordana Dodig Crnkovic (Chalmers University of Technology)</td>
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<td>15:30 – 16:00</td>
<td>Break</td>
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<td>16:00 – 17:00</td>
<td><strong>Panel: Ansgar Koene</strong>&lt;br&gt;Julia Stoyanovich (Drexel University), and Yuriy Brun (University of Massachusetts Amherst)&lt;br&gt;<strong>IEEE P7003 standard for algorithmic bias considerations</strong>&lt;br&gt;Ansgar Koene (University of Nottingham), Liz Dowthwaite (University of Nottingham), and Suchana Seth (Harvard University)</td>
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<tr>
<td>17:00 – 17:15</td>
<td>Closing remarks</td>
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<td>17:30 – 20:00</td>
<td>Reception (Congress Foyer): Mingle to the future: Automotive evening</td>
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Keynotes

Julia Stoyanovich
Drexel University

Aws Albarghouthi
University of Wisconsin-Madison

Ricardo Silva
University College London

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Software can make bad decisions. Software can discriminate!
He is a babysitter.
She is a doctor.

He is a doctor.
She's a babysitter.
YouTube Automatic captions

Rachael Tatman, "Gender and Dialect Bias in YouTube's Automatic Captions" in 2017 Workshop on Ethics in Natural Language Processing
YouTube Automatic captions

Oh Jessica I am this stove I play the heroine me I am

Rachael Tatman, "Gender and Dialect Bias in YouTube's Automatic Captions" in 2017 Workshop on Ethics in Natural Language Processing
Joy Buolamwini

https://www.ted.com/talks/joy_buolamwini_how_i_m_fighting_bias_in_algorithms
Call for Papers

5th Workshop on Fairness, Accountability, and Transparency in Machine Learning (FAT/ML 2018)

Co-located with 35th International Conference on Machine Learning (ICML 2018)

15 July 2018, Stockholm, Sweden

Conference on Fairness, Accountability, and Transparency (FAT*)

A multi-disciplinary conference that brings together researchers and practitioners interested in fairness, accountability, and transparency in socio-technical systems.

FAT* 2018 occurred on February 23-24. Recordings are available on YouTube! And start planning for paper and tutorial submissions for 2019!
systems work in fairness


systems problems

• Specifying fairness requirements
• Generating tests to verify fairness
• Validating and verifying fairness
• Maintaining fairness
• ... and all other aspects of the software engineering lifecycle

oh, and transparency, accountability, and explainability too!
FairWare goals

- Cutting edge systems work
- Connect with ML, policy, etc. research
- Identify challenges and research directions
- Enable collaborations
- Discuss standards