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Biased Against Race or Age?

From the Editor

With this issue of IEEE Software, we re-introduce the “Letters” column. As we receive your reactions, reflections—and, in some cases, corrections to the articles published—we may feature them here. This column is another way we hope to enhance our interactions with the software engineering community and our readers.

FAIRNESS IS AN essential aspect of algorithm-based decision making, in particular if decisions affect human prosperity and well-being. The considerations of Bellamy et al.¹ are thus invaluable for guiding artificial intelligence (AI)-based application development. Considering equal opportunity as the goal of fairness and assuming that AI-based decisions predict scores, the authors propose using the AIF360 tool kit as means for mitigating unfair AI.¹ Although a direct correlation between predicted scores and inadmissible variables like race will identify problems with fairness, naive conclusions may be misleading. We should, to this end, revisit the ProPublica article² that assesses recidivism scores to provide an example of how software may induce a racial bias. With careful re-analysis of the data that led² to a diagnosis of racial bias, Rudin et al.³ conclude that the recidivism scores suffer from an age

bias, which affects races equally and favors older people disproportionately. Their analysis suggests that the observed racial bias is a result of the tools’ age bias and a confounded age/race distribution in the test data. Instead of tinkering with race, the appropriate correction for the worrisome observations by Angwin et al.² thus requires a recalibration of the influence of age on predicted recidivism scores. ☞

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