The world of software development is built on open collaboration, peer learning, and communication. But if half the voices are muted, how can we reach the heights of innovation? In this episode of ACM Bytecast, host Rashmi Mohan tackles this question by speaking with Denae Ford Robinson, a Senior Researcher in the Software Analysis and Intelligence Team at Microsoft Research. Denae is a human-computer interaction researcher, and she works on uncovering barriers to inclusion and participation within the world of software engineering.

To start off the conversation, Denae talks about her background, highlighting how the opportunity to directly impact other people drew her into her line of work. She explains her focus on socio-technical ecosystems, such as online programming communities, and the research and experimentation that has been carried out to identify the five significant barriers preventing people from engaging in Stack Overflow, develop mechanisms to overcome these barriers, and build helpful interventions into the platform.

One major contributor to social issues within online programming communities is a lack of inclusivity, which Denae spends concentrated time addressing. As she explains signals, unconscious bias, shortcomings of automation, and personal experience with inequity, she makes clear that the field has much room to grow. At the same time, though, she leaves listeners with reasons to be excited about the future of software development.

Key Takeaways:
0:28 - Rashmi introduces this episode and her guest, Denae Ford Robinson.
1:19 - To lead off, Rashmi asks Denae to share some personal background information.
3:49 - One aspect of Denae’s work is socio-technical ecosystems.
5:00 - Why was Denae interested in this, and why is it important for software engineers?
7:19 - Rashmi asks Denae to break down the three parts of her study, first looking at barriers.
11:34 - How did Denae go about experimenting with barriers and how to best deal with them?
14:51 - Rashmi and Denae talk about mentors, what followed the study, and peer parity.
21:51 - The conversation turns to issues of inclusivity, social facilitation, and types of signals.
25:48 - How should unconscious social bias be dealt with, and might automation counter bias?
29:41 - How did Denae notice inequity, and what is she excited about?

Links:
Learn more about Denae Ford Robinson and view her company bio.
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Tags: Open collaboration, peer learning, communication, human-computer interaction, barriers, inclusive, participation, software engineering, research, experiment, socio-technical ecosystem, vulnerability, Stack Overflow, community, subcommunity, novice, mentor, study, peer parity, engagement, social facilitation, code signals, technical signals, social signals, unconscious social bias, automation, equal, tools