Keynote

Declarative Debugging: Past, Present, and Future

Adrián Riesco
Associate Professor
Department of Software systems and computation
Universidad Complutense de Madrid
Spain

Abstract

Declarative debugging, also known as algorithmic debugging, is a semi-automatic debugging technique that abstracts the execution order to focus on results. It proceeds by asking questions to an external oracle, usually the user, and has been successfully applied in programming languages such as Java, Haskell, and SQL. However, despite the nice properties of declarative debugging, it has not been widely used beyond Academy. In this talk we present the story and main features of declarative debugging, the projects currently in development, and the challenges it faces.

About the Speaker

Adrián Riesco is Associate Professor at Department of Software systems and computation from Universidad Complutense de Madrid, Spain (UCM). He received his PhD in Computer Science from UCM with his PhD thesis "Declarative Debugging and Heterogeneous Specification in Maude". His research interests are formal methods in rewriting logic and declarative debugging. He has published more than 60 papers on these topics, most of them in collaboration with national and international research centers. In particular, he has contributed in the field of declarative debugging for both imperative and declarative languages, in the theoretical and practical aspects, and in the integration with other paradigms, in particular with testing. Regarding teaching, he coordinates the Master studies in Computer Engineering and has taught several topics in the Mathematics and Computer Science faculties. More information is available at http://maude.sip.ucm.es/~adrian/