

Title: Analyzing Code Corpora to Improve the Correctness and Reliability of Programs

Speaker: Jibesh Patra, Software Engineer at SAP

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Venue: Online

Abstract:

Bugs in software are commonplace, challenging, and expensive to deal with. One widely used direction is to use program analyses and reason about software to detect bugs in them. In recent years, the growth of areas like web application development and data analysis has produced large amounts of publicly available source code corpora, primarily written in dynamically typed languages, such as Python and JavaScript. Analyzing such large code corpora of dynamically typed languages provides opportunities to uncover repeated patterns that aid in training learning-based approaches and solve software engineering problems such as detecting inconsistencies, bugs in code, and reduction of test inputs.

Bio:

Jibesh Patra is working as a Software Engineer at SAP primarily working on improving the code quality of a large codebase. He completed his Ph.D. from the University Of Stuttgart, Germany. During his Ph.D., he visited many research labs such as Microsoft Research at Bangalore and Cambridge. His primary research interests lie in the applications of machine learning in solving software engineering problems.